

NACOmatic

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00F	=>	31
02T	=>	69
23S	=>	61
29S	=>	42
32S	=>	63
37S	=>	41
38S	=>	37
42S	=>	58
48S	=>	46
49S	=>	26
52S	=>	60
53U	=>	27
57S	=>	66
58S	=>	68
79S	=>	41
80S	=>	51
84U	=>	32
88M	=>	40
97M	=>	39
BHK	=>	27
BIL	=>	29
BTM	=>	32
BZN	=>	30
CII	=>	34
CTB	=>	37
DLN	=>	38
EKS	=>	39
GDV	=>	44
GFA	=>	53
GGW	=>	43
GPI	=>	50
GTF	=>	44
HLN	=>	48
HVR	=>	47
HWQ	=>	47
JDN	=>	50
LTY	=>	33
LVM	=>	53
LWT	=>	51
MLS	=>	54
MSO	=>	55
OLF	=>	70
PWD	=>	57
RED	=>	58
RPX	=>	59
SBX	=>	62
SDY	=>	62
THM	=>	65
WYS	=>	68

GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the National Aeronautical Charting Office, FAA, Department of Transportation, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial-Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: <http://nfdc.faa.gov/portal/airportchanges.do>

FAA, Aeronautical Information Services, ATO-R, Rm. 626
800 Independence Ave., SW
Washington, DC 20591
Telephone 1-866-295-8236
Fax 202-267-5322
Email 9-ATOR-HQ-AIS-AIRPORTCHANGES@FAA.GOV

NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the "cut-off" dates listed below to assure publication on the desired effective date.

Effective Date	Airport Information Cut-off date	Airspace Information* Cut-off date
17 Dec 09	4 Nov 09	15 Oct 09
11 Feb 10	30 Dec 09	10 Dec 09
8 Apr 10	24 Feb 10	4 Feb 10
3 Jun 10	21 Apr 10	1 Apr 10
29 Jul 10	16 Jun 10	27 May 10
23 Sep 10	11 Aug 10	22 Jul 10

*Including changes to preferred routes and graphic depictions on charts.

FOR CHARTING ERRORS CONTACT:

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1305 East West Highway
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Email 9-AMC-Aerochart@faa.gov

Frequently asked questions (FAQs) are answered on our web site at www.naco.faa.gov.
See the FAQs prior to contact via toll free number.

FOR PROCUREMENT CONTACT:

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Email 9-AMC-Chartsales@faa.gov
Telephone 1-800-638-8972
Fax 301-436-6829
or any authorized FAA Chart Agent

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

TABLE OF CONTENTS

General Information.....	Inside Front Cover
Abbreviations	2
Directory Legend	4
Airport/Facility Directory	
Idaho.....	22
Montana	59
Oregon	104
Washington	142
Wyoming.....	195
City/Military Airport Cross Reference	216
Seaplane Landing Areas	217
Special Notices.....	219
Regulatory Notices	226
FAA and National Weather Service	
Telephone Numbers	227
Key to Aviation Weather Reports	228
Air Traffic Facilities Telephone Numbers	230
Air Route Traffic Control Centers	232
Flight Service Station Communication Frequencies	233
Flight Standards District Offices	236
Routes/Waypoints	
Low Altitude Directional Routes	237
High Altitude Preferred Routes	238
Q-Routes.....	239
RNAV Routing Pitch and Catch Points	242
VFR Waypoints.....	253
VOR Receiver Check	261
Parachute Jumping Areas	264
Aeronautical Chart Bulletins	266
Supplemental Communication Reference	273
Airport Diagrams	280
National Weather Service (NWS) Upper Air Observing Stations	328
Enroute Flight Advisory Service (EFAS)	Inside Back Cover

ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example—"req" may mean "request", "requesting", "requested", or "requests").

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
acft	aircraft	CIV	Civil
ADCC	Air Defense Control Center	clsd	closed
AER	approach end rwy	comd	command
AFB	Air Force Base	CONUS	Continental United States
AFHP	Air Force Heliport	CSTMS	Customs
afld	airfield	ctc	contact
AFOD	US Army Flight Operations Detachment	cti	control
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	dalgt	daylight
AFSS	Automated Flight Service Station	Dec	December
AG	Agriculture	DIAP	DoD Instrument Approach Procedure
A-GEAR	Arresting Gear	DoD	Department of Defense
AGL	above ground level	DSN	Defense Switching Network (Telephone)
AHP	Army heliport	dspld	displaced
ALS	Approach Light System	durn	duration
alt	altitude	eff	effective
AMC	Air Mobility Command	emerg	emergency
ANGS	Air National Guard Station	EOR	End of Runway
apch	approach	ETA	Estimated Time of Arrival
Apr	April	ETD	Estimated Time of Departure
APU	Auxiliary Power Unit	exc	except
ARB	Air Reserve Base	extd	extend
arpt	airport	FBO	fixed-base operator
ARS	Air Reserve Station	Feb	February
AS	Air Station	fld	field
ASDE-X	Airport Surface Detection Equipment—Model X	FLIP	Flight Information Publication
ASU	Aircraft Starting Unit	flt	flight
ATC	Air Traffic Control	flw	follow
Aug	August	Fri	Friday
AUW	All Up Weight (gross weight)	FSS	Flight Service Station
avbl	available	GA	glide angle
bcn	beacon	GCA	Ground Controlled Approach
blo	below	GS	glide slope
		haz	hazard
		HQ	Headquarters

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

hr	hour	npi	non precision instrument
IAP	Instrument Approach Procedure	NS ABTMT	Noise Abatement
ICAO	International Civil Aviation Organization	NSTD	nonstandard
IFR	Instrument Flight Rules	ntc	notice
ILS	Instrument Landing System	obsn	observation
IM	Inner Marker	Oct	October
IMG	Immigration	OLF	Outlying Field
incr	increase	opr	operate, operator, operational
indef	indefinite	ops	operations
ints	intensity	OTS	out of service
invof	in the vicinity of	ovrn	overrun
IMC	Instrument Meteorological Conditions	PAEW	personnel and equipment working
Jan	January	pat	pattern
JASU	Jet Aircraft Starting Unit	p-line	power line
JOAP	Joint Oil Analysis Program	PMSV	Pilot-to-Metro Service
JOSAC	Joint Operational Support Airlift Center	POL	Petrol, Oils and Lubricants
JRB	Joint Reserve Base	PPR	prior permission required
Jul	July	PRM	Precision Runway Monitoring
Jun	June	PTD	Pilot to Dispatcher
Kt	Knots	RAMCC	Regional Air Movement Control Center
LAA	Local Airport Advisory	req	request
LAHSO	Land and Hold Short Operations	rgt tfc	right traffic
lbs	pounds	RON	Remain Overnight
ldg	landing	rqr	require
lgt	lighted	rstd	restricted
lgts	lights	RSRS	reduced same runway separation
LMM	Compass locator at Middle Marker ILS	rw	runway
LOC	Localizer	Sat	Saturday
LOM	Compass locator at Outer Marker ILS	SELF	Strategic Expeditionary Landing Field
ltd	limited	Sep	September
MACC	Military Area Control Center	SFA	Single Frequency Approach
Mar	March	sfc	surface
MCAF	Marine Corps Air Facility	SFRA	Special Flight Rules Area
MICALF	Marine Corps Auxiliary Landing Field	SOAP	Spectrometric Oil Analysis Program
MCAS	Marine Corps Air Station	SOF	Supervisor of Flying
MCB	Marine Corps Base	SPB	Seaplane Base
med	medium	SR	sunrise
METRO	Pilot-to-Metro voice call	SS	sunset
Mil	military	std	standard
min	minute	Sun	Sunday
MLS	Microwave Landing System	svc	service
MM	Middle Marker of ILS	tfc	traffic
Mon	Monday	thld	threshold
MP	Maintenance Period	Thu	Thursday
MSL	mean sea level	tkf	take-off
MSAW	minimum safe altitude warning	tmp	temporary
NAAS	Naval Auxiliary Air Station	tran	transient
NADC	Naval Air Development Center	Tue	Tuesday
NADEP	Naval Air Depot	twr	tower
NAEC	Naval Air Engineering Center	twy	taxiway
NAES	Naval Air Engineering Station	UC	Under Construction
NAF	Naval Air Facility	USA	United States Army
NALCO	Naval Air Logistics Control Office	USAF	United States Air Force
NALO	Navy Air Logistics Office	USCG	United States Coast Guard
NALF	Naval Auxiliary Landing Field	USN	United States Navy
NAS	Naval Air Station	V	Defense Switching Network (telephone, formerly AUTOVON)
NAWC	Naval Air Warfare Center	VFR	Visual Flight Rules
NAWS	Naval Air Weapons Station	VIP	Very Important Person
ngt	night	VMC	Visual Meteorological Conditions
NOLF	Naval Outlying Field	Wed	Wednesday
Nov	November	wx	weather

DIRECTORY LEGEND

SAMPLE

① CITY NAME
 ② AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC-6(-5DT) N34°41.93' W99°20.20' JACKSONVILLE
 ③ 200 B S4 FUEL 100 OX 1 TPA-1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. COPTER
 ④ ⑤ ⑥ ⑦ ⑧ ⑨ H-46, L-19C IAP, DIAP, AD

⑩ RWY 18-36: H12004X200 (ASPH-CONC-GRVD)
 S-90, D-160, DT-300 PCN 80 R/B/W/T HIRL CL
 RWY 18: LDIN. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36'.
 Thld dsplcd 300'. Trees. Rgt tfc. 0.3% up.
 RWY 36: ALSF1. 0.4% down.
 RWY 09-27: H6000X150 (ASPH) MIRL
 RWY 173-353: H3515X150 (ASPH-PFC) AUW PCN 59 F/A/W/T

⑪ LAND AND HOLD SHORT OPERATIONS
 LANDING HOLD SHORT POINT DIST AVBL
 RWY 18 09-27 6500
 RWY 36 09-27 5400

⑫ RUNWAY DECLARED DISTANCE INFORMATION
 RWY 18: TORA-12004 TODA-12704 ASDA-11704 LDA-11504
 RWY 36: TORA-12004 TODA-12004 ASDA-12004 LDA-11704

⑬ ARRESTING GEAR/SYSTEM
 RWY 18 → HOOK E5 (65' OVRN) BAK-14 BAK-12B (1650')
 BAK-14 BAK-12 (B) (1087') HOOK E5 (74' OVRN) ← RWY 36

⑭ MILITARY SERVICE: A-GEAR E-5 connected on dep end, disconnected on
 apch end. JASU 3(AM32A-60) 2(A/M32A-86)

⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ㉒

⑳ FUEL J8(Mil) (NC-100, A) FLUID W SP PRESAIR LOX
 OIL O-128 TRAN ALERT Avbl 1300-0200Z†, svc limited weekends.

㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙ ㉚ ㉛ ㉜ ㉝ ㉞ ㉟ ㊱ ㊲ ㊳ ㊴ ㊵ ㊶ ㊷ ㊸ ㊹ ㊺ ㊻ ㊼ ㊽ ㊾ ㊿

㊿ AIRPORT REMARKS: Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200-0300Z†. Parachute
 Jumping. Deer invov arpt. Heavy jumbo jet training surface to 9000'. Twy A clsd indef. Flight Notification Service
 (ADCUS) avbl.

① MILITARY REMARKS: ANG PPR/Official Business Only. Base OPS DSN 638-4390, C503-335-4222. Ctc Base OPS 15
 minutes prior to ldg and after dep. Limited tran parking.

② WEATHER DATA SOURCES: AWOS-1 120.3 (202) 426-8000. LLWAS.

③ COMMUNICATIONS: SFA ATIS 127.25 273.5 (202) 426-8003 UNICOM 122.95 PTD 372.2
 NAME FSS (ORL) on arpt. 123.65 122.65 122.2
 NAME RCO 112.2T 112.1R (NAME RADIO)
 ④ NAME APP/DEP CON 128.35 257.725 (1200-0400Z†)
 TOWER 119.65 255.6 (1200-0400Z†) GND CON 121.7 GCO 135.075 (ORLANDO CLNC) CLNC DEL 125.55
 NAME COMD POST (GERONIMO) 311.0 321.4 6761 PMSV METRO 239.8 NAME OPS 257.5

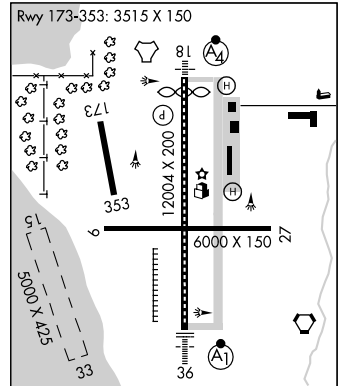
⑤ AIRSPACE: CLASS B See VFR Terminal Area Chart.

⑥ RADIO AIDS TO NAVIGATION: NOTAM FILE ORL. VHF/DF ctc FSS.
 (H) VORTAC 112.2 MCO Chan 59 N28°32.55' W81°20.12' at fld. 1110/8E.
 (H) TACAN Chan 29 CBU (109.2) N28°32.65' W81°21.12' at fld. 1115/8E.
 HERNY NDB (LOM) 221 OR N28°37.40' W81°21.05' 177° 5.4 NM to fld.
 ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
 ASR/PAR (1200-0400Z†)

⑦ COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

⑧ HELIPAD H1: H100X75 (ASPH)
 HELIPAD H2: H60X60 (ASPH)
 HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

⑨ 187 TPA 1000(813)
 WATERWAY 15-33: 5000X425 (WATER)
 SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of
 arpt not visible from twr and are required to ctc twr.













All bearings and radials are magnetic unless otherwise specified.
 All mileages are nautical unless otherwise noted.
 All times are Coordinated Universal Time (UTC) except as noted.
 All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
 The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).













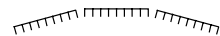


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SKETCH LEGEND







RUNWAYS/LANDING AREAS

Hard Surfaced	
Metal Surface	
Sod, Gravel, etc.	
Light Plane,	
Ski Landing Area or Water	
Under Construction	
Closed	
Helicopter Landings Area	
Displaced Threshold	
Taxiway, Apron and Stopways ..	






MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings	
Power Lines	
Fence	
Towers	
Tanks	
Oil Well	
Smoke Stack	
Obstruction	
Controlling Obstruction	
Trees	
Populated Places	
Cuts and Fills	
Cliffs and Depressions ..	
Ditch	
Hill	

RADIO AIDS TO NAVIGATION

















VORTAC ...		VOR	
VOR/DME ..		NDB	
TACAN		NDB/DME	

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon	
Wind Cone	
Landing Tee	
Tetrahedron	
Control Tower	

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1) Negative symbology, e.g., (A1) (V) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting	
(A) Approach Lighting System ALSF-2 ..	
(A1) Approach Lighting System ALSF-1 ..	
(A2) Short Approach Lighting System SALS/SALSF	
(A3) Simplified Short Approach Lighting System (SSALR) with RAIL	
(A4) Medium Intensity Approach Lighting System (MALS and MALSF)/(SSALS and SSALF)	
(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL	
(+) Omnidirectional Approach Lighting System (ODALS)	
(D) Navy Parallel Row and Cross Bar ..	
(F) Air Force Overrun	
(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided	
(V2) Pulsating Visual Approach Slope Indicator (PVASI)	
(V3) Visual Approach Slope Indicator with a threshold crossing height to accommodate long bodied or jumbo aircraft	
(V4) Tri-color Visual Approach Slope Indicator (TRCV)	
(V5) Approach Path Alignment Panel (APAP)	
(P) Precision Approach Path Indicator (PAPI)	

LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Nav aids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

① CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

② ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

③ LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

④ OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers
CG	US Coast Guard		Use by Transient Military Aircraft
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

⑤ AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

⑥ TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC-5(-4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (-4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15-Aug 31 0630-1700Z, Sep 1-Apr 14 0600-1700Z.

7 GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

8 CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be depicted as GOMW and GOMC.

9 INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAM

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5-4-5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

10 AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbolology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

11 ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00'". When elevation is below sea level a minus "-" sign will precede the figure.

12 ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

13 SERVICING—CIVIL

S1: Minor airframe repairs.	S5: Major airframe repairs.
S2: Minor airframe and minor powerplant repairs.	S6: Minor airframe and major powerplant repairs.
S3: Major airframe and minor powerplant repairs.	S7: Major powerplant repairs.
S4: Major airframe and major powerplant repairs.	S8: Minor powerplant repairs.

14 FUEL

CODE	FUEL	CODE	FUEL
80	Grade 80 gasoline (Red)	B+	Jet B, Wide-cut, turbine fuel with FS-II*, FP** minus 50° C.
100	Grade 100 gasoline (Green)	J4 (JP4)	(JP-4 military specification) FP** minus 58° C.
100LL	100LL gasoline (low lead) (Blue)	J5 (JP5)	(JP-5 military specification) Kerosene with FS-11, FP** minus 46°C.
115	Grade 115 gasoline (115/145 military specification) (Purple)	J8 (JP8)	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C.
A	Jet A, Kerosene, without FS-II*, FP** minus 40° C.	J8+100	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47°C, with-fuel additive package that improves thermo stability characteristics of JP-8.
A+	Jet A, Kerosene, with FS-II*, FP** minus 40°C.	J	(Jet Fuel Type Unknown)
A1	Jet A-1, Kerosene, without FS-II*, FP** minus 47°C.	MOGAS	Automobile gasoline which is to be used as aircraft fuel.
A1+	Jet A-1, Kerosene with FS-II*, FP** minus 47° C.		
B	Jet B, Wide-cut, turbine fuel without FS-II*, FP** minus 50° C.		

*(Fuel System Icing Inhibitor)

**(Freeze Point)

NOTE: Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as "MOGAS", however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

15 OXYGEN—CIVIL

OX 1 High Pressure	OX 3 High Pressure—Replacement Bottles
OX 2 Low Pressure	OX 4 Low Pressure—Replacement Bottles

16 TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as "TPA—See Remarks" and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

17 AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD)

407-975-1740

Southeast Sector (Atlantic States—DC, WV, VA to FL)

407-975-1780

Central Sector (Interior of the US, including Gulf states—MS, AL, LA)

407-975-1760

Southwest East Sector (OK and eastern TX)

407-975-1840

Southwest West Sector (Western TX, NM and AZ)

407-975-1820

Pacific Sector (WA, OR, CA, HI and AK)

407-975-1800

18 CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

14 CFR—PART 139 CERTIFICATED AIRPORTS**INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS**

Airport Index	Required No. Vehicles	Aircraft Length	Scheduled Departures	Agent + Water for Foam
A	1	<90'	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H ₂ O
B	1 or 2	≥90', <126' ----- ≥126', <159'	≥5 ----- <5	Index A + 1500 gal H ₂ O
C	2 or 3	≥126', <159' ----- ≥159', <200'	≥5 ----- <5	Index A + 3000 gal H ₂ O
D	3	≥159', <200' ----- >200'	<5	Index A + 4000 gal H ₂ O
E	3	≥200'	≥5	Index A + 6000 gal H ₂ O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H₂O—Water; DC—Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

19 NOTAM SERVICE

All public use landing areas are provided NOTAM "D" (distant dissemination) and NOTAM "L" (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. "NOTAM FILE IAD". See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMS are available from Flight Service Stations at 1-800-WX-BRIEF. Real time Military NOTAMS are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

20 FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

21 RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter "H" indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt-concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat	(GRVL)—Gravel, or cinders	(PSP)—Pierced steel plank
(ASPH)—Asphalt	(MATS)—Pierced steel planking, landing mats, membranes	(RFSC)—Rubberized friction seal coat
(CONC)—Concrete	(PEM)—Part concrete, part asphalt	(TURF)—Turf
(DIRT)—Dirt	(PFC)—Porous friction courses	(TRTD)—Treated
(GRVD)—Grooved		(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340-600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

- (1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
- (2) The type of pavement:
 - R — Rigid
 - F — Flexible
- (3) The pavement subgrade category:
 - A — High
 - B — Medium
 - C — Low
 - D — Ultra-low
- (4) The maximum tire pressure authorized for the pavement:
 - W — High, no limit
 - X — Medium, limited to 217 psi
 - Y — Low, limited to 145 psi
 - Z — Very low, limited to 73 psi
- (5) Pavement evaluation method:
 - T — Technical evaluation
 - U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.

LIRL—Low Intensity Runway Lights.

MIRL—Medium Intensity Runway Lights.

HIRL—High Intensity Runway Lights.

RAIL—Runway Alignment Indicator Lights.

REIL—Runway End Identifier Lights.

CL—Centerline Lights.

TDZL—Touchdown Zone Lights.

ODALS—Omni Directional Approach Lighting System.

AF OVRN—Air Force Overrun 1000' Standard Approach Lighting System.

LDIN—Lead-In Lighting System.

MALS—Medium Intensity Approach Lighting System.

MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.

MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

SALS—Short Approach Lighting System.

SALSF—Short Approach Lighting System with Sequenced Flashing Lights.

SSALS—Simplified Short Approach Lighting System.

SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.

SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.

ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.

ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.

SF—Sequenced Flashing Lights.

OLS—Optical Landing System.

WAVE—OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the "Remarks" portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL APAP on left side of runway

PNIR APAP on right side of runway

PAPI—Precision Approach Path Indicator

P2L 2-identical light units placed on left side of runway

P4L 4-identical light units placed on left side of runway

P2R 2-identical light units placed on right side of runway

P4R 4-identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

PSIL PVASI on left side of runway

PSIR PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L 2-box SAVASI on left side of runway

S2R 2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL TRCV on left side of runway

TRIR TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L 2-box VASI on left side of runway

V6L 6-box VASI on left side of runway

V2R 2-box VASI on right side of runway

V6R 6-box VASI on right side of runway

V4L 4-box VASI on left side of runway

V12 12-box VASI on both sides of runway

V4R 4-box VASI on right side of runway

V16 16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., -GA 3.5° TCH 37'.

PILOT CONTROL OF AIRPORT LIGHTING

Key Mike	Function
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, "Basic Flight Information and ATC Procedures," for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. "Rgt tfc"—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take-off.

TODA—Take-off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

22 ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a-gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A-Gear which has a bi-direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A-Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI-DIRECTIONAL CABLE (B)

<u>TYPE</u>	<u>DESCRIPTION</u>
BAK-9	Rotary friction brake.
BAK-12A	Standard BAK-12 with 950 foot run out, 1-inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK-12B	Extended BAK-12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK-14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one-half seconds to fully raise the cable.)

UNI-DIRECTIONAL CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>
MB60	Textile brake—an emergency one-time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5-1/E5-3	Chain Type. At USN/USMC stations E-5 A-GEAR systems are rated, e.g., E-5 RATING-13R-1100 HW (DRY), 31L/R-1200 STD (WET). This rating is a function of the A-GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

FOREIGN CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>US EQUIVALENT</u>
44B-3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E-5

UNI-DIRECTIONAL BARRIER

<u>TYPE</u>	<u>DESCRIPTION</u>
MA-1A	Web barrier between stanchions attached to a chain energy absorber.
BAK-15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK-15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

<u>TYPE</u>	<u>DESCRIPTION</u>
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

23 MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

24 JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35-1-7.)

ELECTRICAL STARTING UNITS:

A/M32A-86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC-1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD-3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD-4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire
AIR STARTING UNITS	
AM32-95	150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
AM32A-95	150 +/- 5 lb/min @ 49 +/- 2 psia (35 +/- 2 psig)
LASS	150 +/- 5 lb/min @ 49 +/- 2 psia
MA-1A	82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC-1	15 cfm, 3500 psia
MC-1A	15 cfm, 3500 psia
MC-2A	15 cfm, 200 psia
MC-11	8,000 cu in cap, 4000 psig, 15 cfm
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A-60*	AIR: 120 +/- 4 lb/min (1644 +/- 55 cfm) at 49 +/- 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A-60A	AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A-60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.	
USN JASU	
ELECTRICAL STARTING UNITS:	
NC-8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC-10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.
AIR STARTING UNITS:	
GTC-85/GTE-85	120 lbs/min @ 45 psi.
MSU-200NAV/A/U47A-5	204 lbs/min @ 56 psia.
WELLS AIR START SYSTEM	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
NCPP-105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.
JASU (ARMY)	
59B2-1B	28v, 7.5 kw, 280 amp.
OTHER JASU	
ELECTRICAL STARTING UNITS (DND):	
CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22-35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22-35v, 500 amp continuous 1100 amp intermittent soft start
AIR STARTING UNITS (DND):	
CA2	ASA 45.5 psig, 116.4 lb/min
COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)	
CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig
ELECTRICAL STARTING UNITS (OTHER)	
C-26	28v 45kw 115-200v 15kw 380-800 Hz 1 phase 2 wire
C-26-B, C-26-C	28v 45kw: Split Bus: 115-200v 15kw 380-800 Hz 1 phase 2 wire
E3	DC 28v/10kw
AIR STARTING UNITS (OTHER):	
A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA-1	150 Air HP, 115 lb/min 50 psia
MA-2	250 Air HP, 150 lb/min 75 psia
CARTRIDGE:	
MXU-4A	USAF

(25) FUEL—MILITARY

Fuel available through US Military Base supply, DESC Into-Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into-Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into-Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into-Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into-Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at www.desc.dla.mil/Static/ProductsAndServices.asp; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY**CODE**

ADI	Anti-Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water-Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De-Ice	Anti-icing/De-icing/Defrosting Fluid (MIL-A-8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
OXRB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT	Low pressure nitrogen servicing.
HPNIT	High pressure nitrogen servicing.
LHNIT	Low and high pressure nitrogen servicing.

(27) OIL—MILITARY

US AVIATION OILS (MIL SPECS):

CODE	GRADE, TYPE
0-113	1065, Reciprocating Engine Oil (MIL-L-6082)
0-117	1100, Reciprocating Engine Oil (MIL-L-6082)
0-117+	1100, 0-117 plus cyclohexanone (MIL-L-6082)
0-123	1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III)
0-128	1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)
0-132	1005, Jet Engine Oil (MIL-L-6081)
0-133	1010, Jet Engine Oil (MIL-L-6081)
0-147	None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic
0-148	None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil
0-149	None, Aircraft Turbine Engine Synthetic, 7.5c St
0-155	None, MIL-L-6086C, Aircraft, Medium Grade
0-156	None, MIL-L-23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn-around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute backup, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN-AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

29 AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

30 MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non-operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non-US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11-204, AR 95-27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on board are designated Code 6 or higher as explained in AFJMAN 11-213, AR 95-11, OPNAVINST 3722-8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

31 WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS-3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS-A—reports altimeter setting (all other information is advisory only).

AWOS-1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2—reports the same as AWOS-1 plus visibility.

AWOS-3—reports the same as AWOS-1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION

LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers. SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

32 COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading "COMMUNICATIONS." When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1-800-WX-BRIEF (1-800-992-7433). When the FSS is located on the field it will be indicated as "on aprt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation. (See AIM, Para 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90-42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies—Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

- a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
- b. 122.2 is assigned as a common enroute frequency.
- c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
- d. 122.1 is the primary receive-only frequency at VOR's.
- e. Some FSS's are assigned 50 kHz frequencies in the 122-126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remote facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

TERMINAL SERVICES

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.

D-ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non-government air/ground radio communications facility which may provide airport information.

PTD—Pilot to Dispatcher.

APP CON—Approach Control. The symbol **Ⓡ** indicates radar approach control.


TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON—Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the

VHF radio to contact the appropriate ATC facility or six "key clicks" to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol  indicates radar departure control.

CLNC DEL—Clearance Delivery.

PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.

Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous.

PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as "Wx obsn svc 1900-0000Z+" or "other times" may be used when no specific time is given. PMSV facilities manned by forecasters are considered "Full Service". PMSV facilities manned by weather observers are listed as "Limited Service".

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW—Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter "X" indicate frequency available on request.

AIRSPACE

Information concerning Class B, C, and part-time D and E surface area airspace shall be published with effective times.

Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part-time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

AIRSPACE: CLASS C svc "times" ctc **APP CON** other times CLASS E:

or

AIRSPACE: CLASS D svc "times" other times CLASS E.

When a part-time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700' or 1200' AGL. This will be formatted as:

AIRSPACE: CLASS C svc "times" ctc **APP CON** other times CLASS G, with CLASS E 700' (or 1200') AGL & abv:

or

AIRSPACE: CLASS D svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv:

or

AIRSPACE: CLASS E svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv.

NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part-time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part-time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.

Class E 700' AGL (shown as magenta vignette on sectional charts) and 1200' AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700'/1200' AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

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The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB _____	Automatic Weather Broadcast.
DF _____	Direction Finding Service.
DME _____	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y) _____	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the "Y" mode to receive DME.
GS _____	Glide slope.
H _____	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH _____	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB _____	Non-directional radio beacons providing automatic transcribed weather service.
ILS _____	Instrument Landing System (voice, where available, on localizer channel).
IM _____	Inner marker.
ISMLS _____	Interim Standard Microwave Landing System.
LDA _____	Localizer Directional Aid.
LMM _____	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM _____	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH _____	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS _____	Microwave Landing System.
MM _____	Middle marker.
OM _____	Outer marker.
S _____	Simultaneous range homing signal and/or voice.
SABH _____	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF _____	Simplified Direction Facility.
TACAN _____	UHF navigational facility-omnidirectional course and distance information.
VOR _____	VHF navigational facility-omnidirectional course only.
VOR/DME _____	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC _____	Collocated VOR and TACAN navigational facilities.
W _____	Without voice on radio facility frequency.
Z _____	VHF station location marker at a LF radio facility.

ILS FACILITY PERFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance
Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
30Y	109.35	566	63X	133.60	-	95Y	114.85	650
31X	109.40	-	63Y	133.65	-	96X	114.90	-
31Y	109.45	568	64X	133.70	-	96Y	114.95	652
32X	109.50	514	64Y	133.75	-	97X	115.00	-
32Y	109.55	570	65X	133.80	-	97Y	115.05	654
33X	109.60	-	65Y	133.85	-	98X	115.10	-
33Y	109.65	572	66X	133.90	-	98Y	115.15	656
34X	109.70	516	66Y	133.95	-	99X	115.20	-
34Y	109.75	574	67X	134.00	-	99Y	115.25	658
35X	109.80	-	67Y	134.05	-	100X	115.30	-
35Y	109.85	576	68X	134.10	-	100Y	115.35	660
36X	109.90	518	68Y	134.15	-	101X	115.40	-
36Y	109.95	578	69X	134.20	-	101Y	115.45	662
37X	110.00	-	69Y	134.25	-	102X	115.50	-
37Y	110.05	580	70X	112.30	-	102Y	115.55	664
38X	110.10	520	70Y	112.35	-	103X	115.60	-
38Y	110.15	582	71X	112.40	-	103Y	115.65	666
39X	110.20	-	71Y	112.45	-	104X	115.70	-
39Y	110.25	584	72X	112.50	-	104Y	115.75	668
40X	110.30	522	72Y	112.55	-	105X	115.80	-
40Y	110.35	586	73X	112.60	-	105Y	115.85	670
41X	110.40	-	73Y	112.65	-	106X	115.90	-
41Y	110.45	588	74X	112.70	-	106Y	115.95	672
42X	110.50	524	74Y	112.75	-	107X	116.00	-
42Y	110.55	590	75X	112.80	-	107Y	116.05	674
43X	110.60	-	75Y	112.85	-	108X	116.10	-
43Y	110.65	592	76X	112.90	-	108Y	116.15	676
44X	110.70	526	76Y	112.95	-	109X	116.20	-
44Y	110.75	594	77X	113.00	-	109Y	116.25	678
45X	110.80	-	77Y	113.05	-	110X	116.30	-
45Y	110.85	596	78X	113.10	-	110Y	116.35	680
46X	110.90	528	78Y	113.15	-	111X	116.40	-
46Y	110.95	598	79X	113.20	-	111Y	116.45	682
47X	111.00	-	79Y	113.25	-	112X	116.50	-
47Y	111.05	600	80X	113.30	-	112Y	116.55	684
48X	111.10	530	80Y	113.35	620	113X	116.60	-
48Y	111.15	602	81X	113.40	-	113Y	116.65	686
49X	111.20	-	81Y	113.45	622	114X	116.70	-
49Y	111.25	604	82X	113.50	-	114Y	116.75	688
50X	111.30	532	82Y	113.55	624	115X	116.80	-
50Y	111.35	606	83X	113.60	-	115Y	116.85	690
51X	111.40	-	83Y	113.65	626	116X	116.90	-
51Y	111.45	608	84X	113.70	-	116Y	116.95	692
52X	111.50	534	84Y	113.75	628	117X	117.00	-
52Y	111.55	610	85X	113.80	-	117Y	117.05	694
53X	111.60	-	85Y	113.85	630	118X	117.10	-
53Y	111.65	612	86X	113.90	-	118Y	117.15	696
54X	111.70	536	86Y	113.95	632	119X	117.20	-
54Y	111.75	614	87X	114.00	-	119Y	117.25	698
55X	111.80	-	87Y	114.05	634	120X	117.30	-
55Y	111.85	616	88X	114.10	-	120Y	117.35	-
56X	111.90	538	88Y	114.15	636	121X	117.40	-
56Y	111.95	618	89X	114.20	-	121Y	117.45	-
57X	112.00	-	89Y	114.25	638	122X	117.50	-
57Y	112.05	-	90X	114.30	-	122Y	117.55	-
58X	112.10	-	90Y	114.35	640	123X	117.60	-
58Y	112.15	-	91X	114.40	-	123Y	117.65	-
59X	112.20	-	91Y	114.45	642	124X	117.70	-
59Y	112.25	-	92X	114.50	-	124Y	117.75	-
60X	133.30	-	92Y	114.55	644	125X	117.80	-
60Y	133.35	-	93X	114.60	-	125Y	117.85	-
61X	133.40	-	93Y	114.65	646	126X	117.90	-
61Y	133.45	-	94X	114.70	-	126Y	117.95	-
62X	133.50	-	94Y	114.75	648			
62Y	133.55	-	95X	114.80	-			

(35) COMM/NAV/WEATHER REMARKS:

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

ANACONDA**BOWMAN FLD** (3U3) 3 NE UTC-7(-6DT) N46°09.19' W112°52.07'

5034 B FUEL 100LL, JET A NOTAM FILE GTF

RWY 16-34: H6011X75 (ASPH) MIRL 0.6% up S

RWY 16: PAPI(P2L)—GA 3.0° TCH 37'.

RWY 34: PAPI(P2L)—GA 3.5° TCH 50'. Tree. Rgt tfc.

RWY 04-22: H4515X60 (ASPH) S-18, D-25 MIRL 1.0% up SW

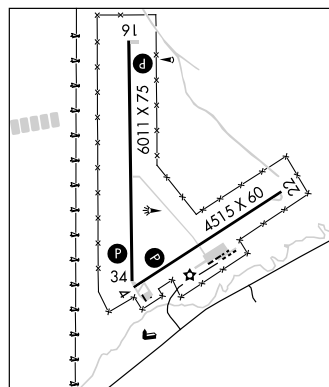
RWY 04: PAPI(P2L)—GA 3.75° TCH 44'. P-line.

AIRPORT REMARKS: Unattended. Fuel unavailable indef. Phone on fld. Unlighted hazardous stack 585' AGL located 3.2 NM SW of arpt.

ACTIVATE MIRL Rwy 04-22 and Rwy 16-34, PAPI Rwy 16, Rwy 34, Rwy 04 and AWOS—CTAF.

WEATHER DATA SOURCES: AWOS-A 122.8 (406) 563-8275. Plus visibility.**COMMUNICATIONS:** CTAF/UNICOM 122.8

SALT LAKE CENTER APP/DEP CON 132.4

RADIO AIDS TO NAVIGATION: NOTAM FILE BTM.**COPPERTOWN (L) VORW/DME** 111.6 CPN Chan 53 N46°01.92' W112°44.85' 309° 8.8 NM to fld. 5780/16E.**GREAT FALLS**H-1D, L-13C
IAP**ASHLAND****ST LABRE MISSION** (3U4) 1 NW UTC-7(-6DT) N45°36.00' W106°16.03'

2909 NOTAM FILE GTF

RWY 13-31: 3830X95 (GRVL-DIRT)

RWY 13: Tree. RWY 31: Tree.

AIRPORT REMARKS: Unattended. Vehicles and horses in vicinity of rwy. 100' lgtd antenna 1/2 mile southwest of arpt on hill. Hay bales and farm equipment adjacent to rwy. Rwy 13-31 muddy when wet.**COMMUNICATIONS:** CTAF/UNICOM 122.8**BILLINGS****AUGUSTA** (3U5) 2 SE UTC-7(-6DT) N47°27.80' W112°22.80'

4145 NOTAM FILE GTF

RWY 01-19: 3650X75 (TURF)

RWY 01: Fence. Rgt tfc. RWY 19: Hay bales. Rgt tfc.

AIRPORT REMARKS: Unattended. Wildlife on and in vicinity of arpt. Unlimited vehicle access to arpt. Rwy 01-19 gopher holes on rwy surface. Rwy 01-19 marked with white cones.**COMMUNICATIONS:** CTAF 122.9**GREAT FALLS****BABB** (49S) 1 SE UTC-7(-6DT) N48°50.70' W113°25.64'

4518 NOTAM FILE GTF

RWY 14-32: 3860X110 (TURF)

RWY 14: Trees. Rgt tfc. RWY 32: Trees. Rgt tfc.

AIRPORT REMARKS: Unattended. Livestock on and in vicinity of arpt. Rwy 14-32 soft when wet. Gopher holes on rwy surface. Tall grass at north end. Rwy 14 markings NSTD, tires faded and obscured by weeds. No snow removal. Rwy 14-32 edge marked with painted tires full length.**COMMUNICATIONS:** CTAF 122.9**GREAT FALLS**

BAKER MUNI (BHK) 1 SE UTC-7(-6DT) N46°20.86' W104°15.57'

BILLINGS

2975 B S4 FUEL 100LL, JET A NOTAM FILE BHK

L-13E

RWY 13-31: H4898X75 (ASPH) S-17.5, D-22.5 MIRL 0.3% up SE

IAP

RWY 13: PAPI(P2L)—GA 3.0° TCH 33'. Antenna.

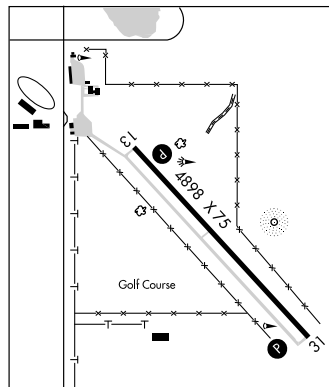
RWY 31: PAPI(P2L)—GA 3.25° TCH 13'. Fence.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z, Sat 1500-1900Z. MIRL Rwy 13-31 and PAPI Rwy 13 and Rwy 31 opr dusk-0500Z after 0500Z activate—CTAF.

WEATHER DATA SOURCES: ASOS 135.475 (406) 778-3312.**COMMUNICATIONS:** CTAF 122.9.⑧ **SALT LAKE CENTER APP/DEP CON** 126.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE DIK.

DICKINSON (H) VORTACW 112.9 DIK Chan 76 N46°51.60' W102°46.41' 230° 68.7 NM to fld. 2520/14E. **HIWAS.**

TIMBER NDB (HW) 344 BKU N46°20.88' W104°15.38' at fld. NOTAM FILE BHK.

**BENCHMARK** (3U7) 0 SE UTC-7(-6DT) N47°28.88' W112°52.19'

GREAT FALLS

5434 NOTAM FILE GTF

H-1D, L-13C

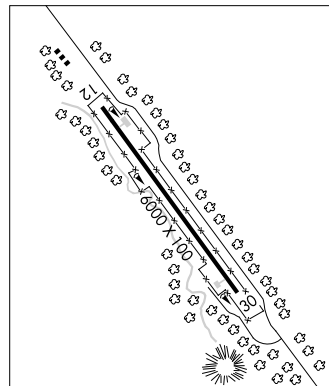
RWY 12-30: H6000X100 (ASPH) S-45, D-80, DT-140

RWY 12: Trees. RWY 30: Hill.

AIRPORT REMARKS: Unattended. No services avbl. Mountains parallel E and W of arpt. Rwy 30 recommended departure rwy conditions permitting. Rwy 12 rises uphill 120' with rising terrain beyond. Rwy subject to moderate to severe crosswinds and turbulence. No snow removal winters. Arpt is located within the Lewis and Clark National Forest.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE GTF.

GREAT FALLS (H) VORTACW 115.1 GTF Chan 98 N47°27.00' W111°24.73' 256° 59.4 NM to fld. 3672/16E.

**BERT MOONEY** (See BUTTE)**BIGFORK****FERDALE AIRFIELD** (53U) 3 NE UTC-7(-6DT) N48°04.50' W114°00.06'

GREAT FALLS

3060 S4 TPA—See Remarks NOTAM FILE GTF

RWY 15-33: 3500X95 (TURF)

RWY 15: Trees. RWY 33: Trees.

AIRPORT REMARKS: Unattended. Snow removal may be delayed call for conditions 406-257-5994. Rwy 15-33 white cones mark full rwy length. Red tfc cones mark each rwy thld. Dep procedure straight out through TPA of 4060(1000).

COMMUNICATIONS: CTAF 122.9

BIG SANDY (3U8) 1 S UTC-7(-6DT) N48°09.75' W110°06.80'

GREAT FALLS

2700 B S3 TPA-3500(800) NOTAM FILE GTF

L-13D

RWY 06-24: H3600X60 (ASPH) S-4 HIRL

RWY 24: Road.

RWY 13-31: 2975X50 (TURF)

RWY 13: P-line. RWY 31: Fence.

RWY 18-36: 1430X55 (TURF)

RWY 18: P-line.

AIRPORT REMARKS: Attended continuously. Rwy 13-31 thlds marked with boards on a frame structure painted black and yellow. ACTIVATE HIRL Rwy 06-24—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.

HVR (L) VORW/DME 111.8 HVR Chan 55 N48°32.43' W109°46.20' 195° 26.5 NM to fld. 2583/16E.

BIG SKY FLD (See CULBERTSON)**BIG TIMBER** (6S0) 2 SW UTC-7(-6DT) N45°48.38' W109°58.87'

GREAT FALLS

4492 B S4 FUEL 100LL, JET A NOTAM FILE GTF

H-1D, L-13D

RWY 06-24: H5285X75 (ASPH) S-12 MIRL

RWY 24: PAPI(P2L)—GA 3.0° TCH 45'.

RWY 18-36: 4000X100 (TURF)

RWY 18: Fence.

RWY 36: Fence.

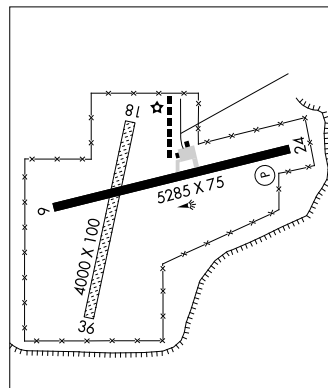
AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z†, Sat-Sun on call.

For attendant Sat-Sun call 406-932-4389. MIRL Rwy 06-24 opr dusk-dawn, other times ACTIVATE—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE LVM.

LIVINGSTON (H)VORW/DME 116.1 LVM Chan 108 N45°42.15'

W110°26.55' 057° 20.4 NM to fld. 4650/15E.



BILLINGS LOGAN INTL (BIL) 2 NW UTC-7(-6DT) N45°48.46' W108°32.57'**BILLINGS**

3652 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 ARFF Index—See Remarks NOTAM FILE BIL H-1E, L-13D

RWY 10L-28R: H10518X150 (ASPH-PFC) S-130, D-170, ST-175, DT-285 HIRL IAP, AD

RWY 10L: MALSR. PAPI(P4L)—GA 3.0° TCH 51'. 0.8% down.

RWY 28R: REIL. PAPI(P4R)—GA 3.0° TCH 56'. Ground. 1.0% up.

RWY 07-25: H5501X75 (ASPH-GRVD) S-12.5 MIRL
1.9% up SW

RWY 07: PAPI(P4L)—GA 3.0° TCH 27'. Ground.

RWY 25: REIL. PAPI(P4R)—GA 3.0° TCH 35'.

RWY 10R-28L: H3801X75 (ASPH) S-12 MIRL 1.2% up NW

RWY 10R: Ground.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 07: TORA-5501 TODA-5501 ASDA-5501 LDA-5501

RWY 10L: TORA-10518 TODA-10518 ASDA-10518 LDA-10518

RWY 25: TORA-5501 TODA-5501 ASDA-5501 LDA-5501

RWY 28R: TORA-10518 TODA-10518 ASDA-10518 LDA-10518

AIRPORT REMARKS: Attended continuously. Rwy 07-25 and Rwy 10R-28L CLOSED to acft over 12,500 lbs. Migratory waterfowl invof arpt. Snow removal ops in progress winter months. Class I, ARFF Index C. PPR unscheduled air carrier ops with more than 30 passenger seats ctc arpt ops 406-657-8495. ARFF Index B from 0800-1300Z±. 180° turns Rwy 10L-28R by acft over 25000 lbs prohibited. For MIRL Rwy 10R-28L and Rwy 07-25, HIRL Rwy 10L-28R, MALSR Rwy 10L and REIL Rwy 25 and Rwy 28R ctc twr.

WEATHER DATA SOURCES: ASOS (406) 248-2773. LLWAS.**COMMUNICATIONS:** ATIS 126.3 UNICOM 122.95

RCO 122.55 (GREAT FALLS RADIO)

⑧ APP/DEP CON 120.5 (West) 119.2 (East)

TOWER 127.2 GND CON 121.9 CLNC DEL 121.9 PRE TAXI CLNC 121.9

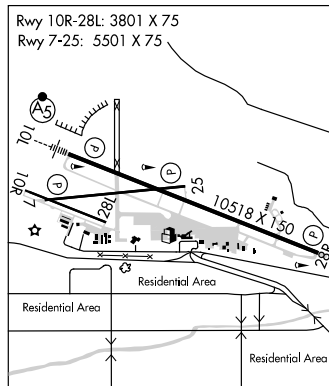
AIRSPACE: CLASS C svc ctc APP CON 20 NM Out.**RADIO AIDS TO NAVIGATION:** NOTAM FILE BIL.

(H) VORTACW 114.5 BIL Chan 92 N45°48.51' W108°37.48' 077° 3.4 NM to fld. 3808/14E.

SAIGE NDB (LOM) 251 BI N45°51.13' W108°41.67' 099° 6.9 NM to fld.

ILS 110.3 I-BIL Rwy 10L Class IB. LOM SAIGE NDB.

ILS/DME 111.5 I-BMO Chan 52 Rwy 28R. Class IA. Localizer unusable by 20° left and right of course.

**BOULDER** (3U9) 2 S UTC-7(-6DT) N46°12.70' W112°06.35'**GREAT FALLS**

4968 NOTAM FILE GTF

RWY 11-29: 3675X72 (TURF)

RWY 11: Hill. RWY 29: Road.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 11-29 thlds marked with faded red cones, edges marked with white cones. -2' drainage ditch +1' berm W side of rwy full length, 43' from Rwy 11-29 centerline.

COMMUNICATIONS: CTAF 122.9**BOWMAN FLD** (See ANACONDA)**BOZEMAN** N45°47.03' W111°09.33' NOTAM FILE BZN.**GREAT FALLS**

(H) VORW/DME 112.4 BZN Chan 71 at Gallatin Fld. 4430/18E.

H-1D, L-13C

VOR portion unusable 360°-105° beyond 20 NM. DME portion unusable 350°-105° beyond 20 NM.

RCO 122.5 (GREAT FALLS RADIO)

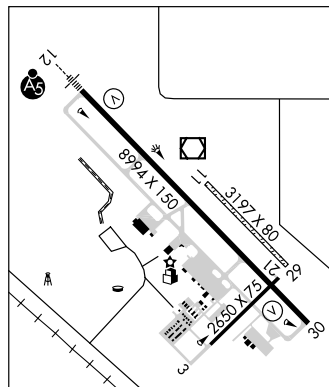
BOZEMAN**GALLATIN FLD** (BZN) 7 NW UTC-7(-6DT) N45°46.65' W111°09.12'4473 B S4 **FUEL** 100, 100LL, JET A OX 1, 2, 3, 4 TPA—See remarks

Class I, ARFF Index B NOTAM FILE BZN

RWY 12-30: H8994X150 (ASPH-GRVD) S-75, D-200, ST-175, DT-360 HIRL**RWY 12:** MALSR. VASI(V4L)—GA 3.0° TCH 55'. 0.5% up.**RWY 30:** REIL. VASI(V4L)—GA 3.0° TCH 51'. 0.4% down.**RWY 03-21:** H2650X75 (ASPH) S-12.5 0.8% up SW**RWY 11-29:** 3197X80 (TURF) 0.4% up SE**LAND AND HOLD SHORT OPERATIONS**

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 12	12-30	6841

AIRPORT REMARKS: Attended 1300-0700Z†. Parachute Jumping. For after hour svcs call fixed base operators 406-388-1351/4152. Migratory birds invof arpt. Rwy 11-29 open when dry, clsd when wet or snow covered. Glider ops on and invof arpt. PPR for unscheduled air carrier ops with more than 30 passenger seats call arpt manager 406-388-6632. Rwy 21 between Rwy 12-30 and Twy A avbl for air carrier use day/VFR only. Snow removal equipment monitors CTAF. Tkf Rwy 03 prohibited until after confirming no tfc using Rwy 12. TPA—Single Engine 5303(829), Multi Engine/Turbojet 5802(1329). When twr clsd ACTIVATE HIRL Rwy 12-30, and MALSR Rwy 12—CTAF. At all times ACTIVATE REIL Rwy 30—CTAF. Landing fee for acft over 12,500 pounds.

WEATHER DATA SOURCES: ASOS (406) 388-4882.**COMMUNICATIONS:** CTAF 118.2 ATIS 135.425 UNICOM 122.95**BOZEMAN RCO** 122.5 (GREAT FALLS RADIO)**SALT LAKE CENTER APP/DEP CON** 132.4**BOZEMAN TOWER** 118.2 (1300-0700Z†) **GND CON** 121.8**AIRSPACE:** CLASS D svc 1300-0700Z† other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE BZN.**BOZEMAN (H) VORW/DME** 112.4 BZN Chan 71 N45°47.03' W111°09.33' at fld. 4430/18E**MANNI NDB (LOM)** 266 BZ N45°52.31' W111°17.14' 117° 8.0 NM to fld. LOM unusable 340°-110° byd 15 NM all altitudes.**ILS** 109.3 I-BZN Rwy 12 Class IE. LOM MANNI NDB. LOM unusable 340°-110° byd 15 NM all altitudes.**BRIDGER MUNI** (6S1) 0 W UTC-7(-6DT) N45°17.50' W108°55.54'

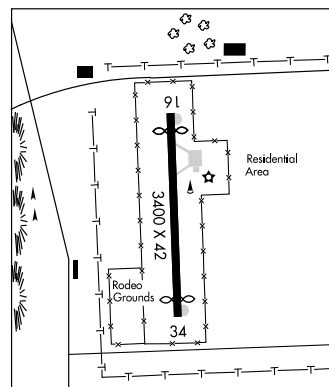
3720 B NOTAM FILE GTF

RWY 16-34: H3400X42 (ASPH) S-4 LIRL (NSTD)**RWY 16:** Thld dspcd 120'. Tree.**RWY 34:** Thld dspcd 475'. Hill. Rgt tfc.

AIRPORT REMARKS: Unattended. Rwy 16 thld relocated 120' for ngt ops only not marked. Rwy 34 dspcd thld marked by numbers 3280' avbl for ngt ops. Rwy 16-34 LIRL NSTD. West side 57' from pavement edge, East side 47' from pavement edge. Each thld has 4 lgts total. ACTIVATE LIRL Rwy 16-34—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE BIL.**BILLINGS (H) VORTACW** 114.5 BIL Chan 92 N45°48.51' W108°37.48' 188° 33.5 NM to fld. 3808/14E.**BILLINGS**

L-13D



BROADUS (ØØF) 3 NW UTC-7(-6DT) N45°28.23' W105°27.44'

BILLINGS

3280 B FUEL 100LL NOTAM FILE GTF

L-13E

RWY 10-28: H4400X75 (ASPH) S-12.5 MIRL

RWY 10: Rgt tfo.

AIRPORT REMARKS: Unattended. MIRL Rwy 10-28 opr dusk-1700. After 1700 ACTIVATE MIRL Rwy 10-28—CTAF.

COMMUNICATIONS: CTAF 122.9

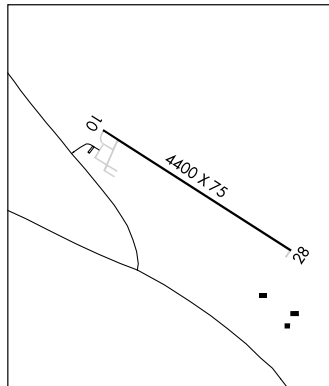
RADIO AIDS TO NAVIGATION: NOTAM FILE MLS.

MILES CITY (H) VOR/DME 112.1 MLS Chan 58 N46°22.93'

W105°57.21' 144° 58.5 NM to fld. 2640/15E.

NDB (MHW) 335 BDX N45°26.15' W105°24.67'

302° 2.9 NM to fld. NOTAM FILE GTF. VFR only.



BROWNING

STARR-BROWNING AIRSTRIP (8SØ) 5 NW UTC-7(-6DT) N48°36.08' W113°06.89'

GREAT FALLS

4655 B NOTAM FILE GTF

L-13C

RWY 06-24: H4069X74 (ASPH) MIRL

AIRPORT REMARKS: Unattended. Livestock on and in vicinity of arpt.

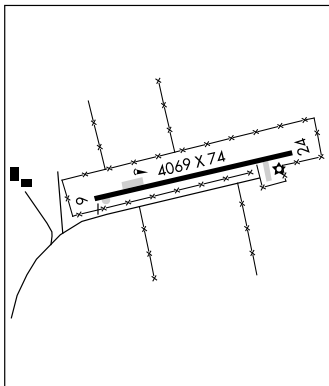
Irregular snow removal. Rwt 06-24 twy has debris and gravel, weeds encroaching. ACTIVATE MIRL Rwy 06-24—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE CTB.

CUT BANK (L) VORTACW 114.4 CTB Chan 91 N48°33.90'

W112°20.60' 257° 30.8 NM to fld. 3780/17E.

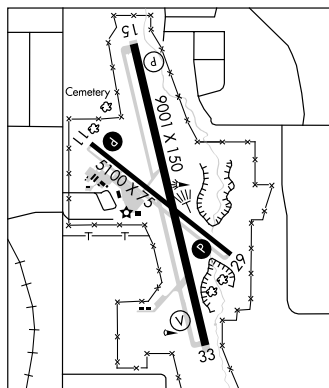


BUTTE N45°57.20' W112°29.83'

GREAT FALLS

RC0 122.2 122.4 (GREAT FALLS RADIO)

L-13C

BUTTE**BERT MOONEY** (BTM) 3 SE UTC-7(-6DT) N45°57.29' W112°29.85'5550 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 LRA Class I, ARFF Index A
NOTAM FILE BTM**RWY 15-33:** H9001X150 (ASPH-GRVD) S-75, D-160, ST-175,
DT-250 MIRL**RWY 15:** REIL. PAPI(P4L)—GA 3.5° TCH 55'. Rgt tfc. 0.6% up.**RWY 33:** VASI(V4L)—GA 3.0° TCH 78'. Tower.**RWY 11-29:** H5100X75 (ASPH-GRVD) S-12.5 MIRL**RWY 11:** REIL. PAPI(P2L)—GA 4.0° TCH 38'. Road.**RWY 29:** REIL. PAPI(P2L)—GA 4.0° TCH 45'. Bldg.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 11:** TORA-5100 TODA-5100 ASDA-5100 LDA-5100**RWY 29:** TORA-5100 TODA-5100 ASDA-5100 LDA-5100**AIRPORT REMARKS:** Attended dawn-dusk. Deer invof arpt. Snow removal ops in progress during periods of snow. PPR for unscheduled air carrier ops with more than 30 passenger seats call arpt manager 406-494-3771. Twy D rstd to acft 12,500 lbs or less between Rwy 29 apch end and Rwy 15-33, and Twy D between Rwy 11 apch end and Twy F. Rwy 11-29 from Rwy end 29 to Rwy 15-33 and from Twy F to Rwy end 11 not avbl for air carrier acft over 12,500 lbs. Fee for all commercial acft and acft over 10,000 pounds. Landing fee. Rwy 11 PAPI straight-in only. Rwy 33 do not use VASI byd 1.5 miles due to high terrain. PAPI restricted to 2.1 NM from Rwy 29 thld due to high terrain. MIRL Rwy 15-33 preset low ints dusk-dawn, MIRL Rwy 11-29 avbl on req 0600Z+ to dawn. ACTIVATE MIRL Rwy 15-33 and Rwy 11-29, PAPI Rwy 11 and Rwy 29, and REIL Rwy 11, Rwy 29, and Rwy 15—CTAF.**WEATHER DATA SOURCES:** ASOS 135.175 (406) 494-1870.**COMMUNICATIONS:** CTAF/UNICOM 123.0**COPPERTOWN RCO** 122.65 (GREAT FALLS RADIO)**BUTTE RCO** 122.2 122.4 (GREAT FALLS RADIO)**SALT LAKE CENTER APP/DEP CON** 132.4**RADIO AIDS TO NAVIGATION:** NOTAM FILE BTM.**COPPERTOWN (L) VORW/DME** 111.6 CPN Chan 53 N46°01.92' W112°44.85' 098° 11.4 NM to fld.
5780/16E.**WHITEHALL (H) VORW/DME** 113.7 HIA Chan 84 N45°51.71' W112°10.18' 274° 14.8 NM to fld. 5530/18E.**ILS/DME** 110.9 I-BEY Chan 46 Rwy 15. Class IE.**BUTTE AERO HELIPORT** (84U) 4 SE UTC-7(-6DT) N45°57.20' W112°29.83'

5553 B S4 FUEL 100, 100LL, JET A OX 1, 2, 3, 4 LRA NOTAM FILE GTF

HELIPAD H2: H80X30 (ASPH)**HELIPORT REMARKS:** Attended dawn-dusk. Helipad may be used for snowpiling during winter months ctc arpt manager 406-494-3771 for current conditions. Grass growing through cracks in helipad. For customs contact GREAT FALLS AFSS.**COMMUNICATIONS:** CTAF/UNICOM 123.0**CANYON FERRY** (See TOWNSEND)**CAPITOL** N46°36.40' W111°56.23'. NOTAM FILE HLN.**NDB (Hw)** 335 CVP 254° 1.9 NM to Helena Rgnl. Unmonitored when twr clsd.**GREAT FALLS****L-13C****CHESTER** N48°30.48' W110°58.85'. NOTAM FILE GTF.**NDB (MHW)** 323 LTY at Liberty Co. VFR only.**GREAT FALLS****L-13C**

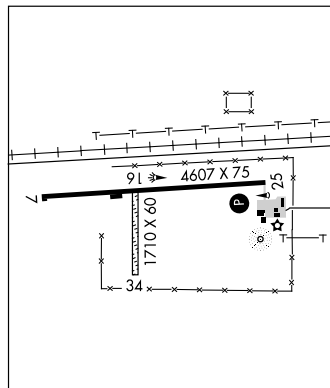
CHESTER**LIBERTY CO** (LTY) 1 W UTC-7(-6DT) N48°30.64' W110°59.45'**GREAT FALLS**3160 B S4 **FUEL** 100LL TPA-3960(800) NOTAM FILE GTF**L-13C****RWY 07-25:** H4607X75 (ASPH-PFC) S-12.5 MIRL**RWY 25:** PAPI(P2L)—GA 3.0° TCH 39'. P-line.**RWY 16-34:** 1710X60 (TURF)**RWY 16:** Railroad.

AIRPORT REMARKS: Attended Mar-Nov Mon-Fri 1500-0000Z±, Dec-Feb irregular. Deer and antelope invof arpt. Rwy 16-34 has numerous gopher holes. Rwy 16-34 rwy ends marked with sheet metal installed on a frame fixture 2' tall painted black and yellow. Rwy 16-34 marked with white cones full length. ACTIVATE MIRL Rwy 07-25, PAPI Rwy 25—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.

HAVRE (L) VOR/DME 111.8 HVR Chan 55 N48°32.43'
W109°46.20' 252° 48.7 NM to fld. 2583/16E.

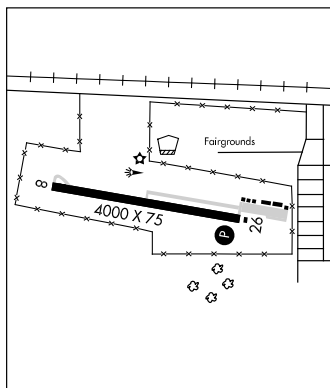
CHESTER NDB (MHW) 323 LTY N48°30.48' W110°58.85'
at fld. NOTAM FILE GTF. VFR only.

**CHINOOK****EDGAR & OBIE** (S71) 1 W UTC-7(-6DT) N48°35.53' W109°15.04'**GREAT FALLS**2416 B S2 **FUEL** 100LL TPA-3216(800) NOTAM FILE GTF**L-13D****RWY 08-26:** H4000X75 (ASPH) S-12.5 MIRL**RWY 26:** PAPI(P2L)—GA 4.0° TCH 37'. Tree.**AIRPORT REMARKS:** Attended 1400-0200Z±, ngts call 406-357-2429.

ACTIVATE PAPI Rwy 26—CTAF. ACTIVATE MIRL Rwy 08-26
dawn-dusk—CTAF. After dusk MIRL on continuously until dawn.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.

HAVRE (L) VOR/DME 111.8 HVR Chan 55 N48°32.43'
W109°46.20' 065° 20.9 NM to fld. 2583/16E.

**HEBBELMAN** (4U4) 8 SE UTC-7(-6DT) N48°30.83' W109°03.74'**GREAT FALLS**2576 S4 **FUEL** 100LL NOTAM FILE GTF**RWY 04-22:** 3650X50 (TURF-GRVL) **RWY LGTS(NSTD)****RWY 04:** Fence. **RWY 22:** Pole.**RWY 11-29:** 2254X55 (TURF)**RWY 29:** Fence.

AIRPORT REMARKS: Attended continuously. Rwy 04 large 8' deep sinkhole in right side of rwy 400' from thld. Rwy 29 dirt road crosses rwy 300' byd thld. Rwy 04-22 thld lgts only, no other lgts. For thld lgts Rwy 04-22 ctc arpt manager on 406-357-4233. Rwy 04-22 first 1130' Rwy 04 has 20' grvl center, remainder turf.

COMMUNICATIONS: CTAF/UNICOM 122.8

CHOTEAU (CII) 1 NE UTC-7(-6DT) N47°49.70' W112°10.10'

GREAT FALLS

3947 B FUEL 100LL JET A NOTAM FILE GTF

H-1D, L-13C

RWY 14-32: H5000X75 (ASPH) S-16 MIRL

IAP

RWY 14: PAPI(P2L)—GA 3.0° TCH 23'.

RWY 32: PAPI(P2L)—GA 3.0° TCH 25. Tree.

RWY 05-23: H3700X60 (ASPH) S-12.5 MIRL

RWY 05: PAPI(P2L)—GA 3.0° TCH 25'.

RWY 23: PAPI(P2L)—GA 3.0° TCH 23. Road.

AIRPORT REMARKS: Attended Mon-Fri 1500-0100Z±. ACTIVATE MIRL

Rwy 05-23 and Rwy 14-32, PAPI Rwy 05 and

Rwy 23 and Rwy 14 and Rwy 32-122.8.

COMMUNICATIONS: CTAF/UNICOM 122.8

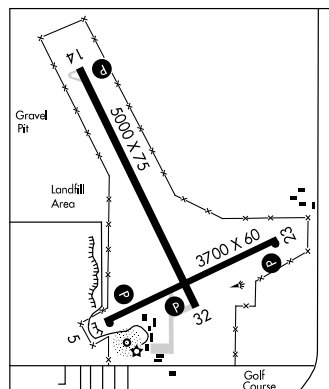
SALT LAKE CENTER APP/DEP CON 133.4

RADIO AIDS TO NAVIGATION: NOTAM FILE GTF.

GREAT FALLS (H) VORTACW 115.1 GTF Chan 98 N47°27.00'

W111°24.73' 291° 38.2 NM to fld. 3672/16E.

NDB (MHW) 269 CII N47°49.35' W112°10.26' at fld.

**CIRCLE TOWN CO** (4U6) 1 E UTC-7(-6DT) N47°25.12' W105°33.72'

BILLINGS

2426 B S4 FUEL 100LL NOTAM FILE GTF

L-13E

RWY 12-30: H4100X75 (ASPH-PFC) S-25 MIRL

RWY 12: Railroad.

RWY 30: VASI(V2L)—GA 3.0° TCH 20'.

RWY 03-21: 2500X195 (TURF)

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z±. Rwy 03-21

CLOSED winter months. Rwy 03-21 unusable in wet weather. Rwy

03-21 thld marked with red cones. Rwy 03-21 is rough, with long

grass. ACTIVATE MIRL Rwy 12-30—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

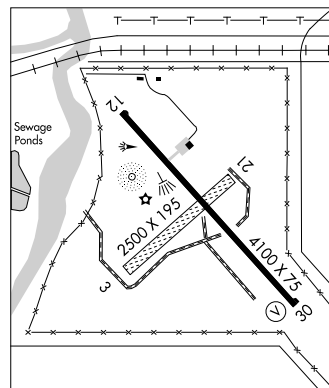
RADIO AIDS TO NAVIGATION: NOTAM FILE MLS.

MILES CITY (H) VORW/DME 112.1 MLS Chan 58 N46°22.93'

W105°57.21' 359° 64.3 NM to fld. 2640/15E.

NDB (HW) 245 CRR N47°25.10' W105°33.53' at fld.

NOTAM FILE GTF. VFR only.

**CLINTON****ROCK CREEK** (RCØ) 3 SE UTC-7(-6DT) N46°43.63' W113°39.46'

GREAT FALLS

3547 NOTAM FILE GTF

RWY 07-25: 4100X75 (TURF)

RWY 07: Hill. Rgt tfc.

RWY 25: Pole. Rgt tfc.

AIRPORT REMARKS: Unattended. Gopher holes full rwy length. Snow removal irregular. Trees and terrain in transition sfc both sides of rwy.

COMMUNICATIONS: CTAF 122.9

COLSTRIP (M46) 3 SW UTC-7(-6DT) N45°51.17' W106°42.56'

BILLINGS

3426 B NOTAM FILE GTF

H-1E, 2F, L-13D

RWY 06-24: H5100X75 (ASPH) S-12.5 MIRL 0.9% up SW

IAP

RWY 06: PAPI(P2L)—GA 3.0° TCH 26'. Hill.

RWY 24: PAPI(P2L)—GA 3.0° TCH 26'.

AIRPORT REMARKS: Attended on call. Deer on airport. MIRL Rwy 06-24 and PAPI Rwy 06 and Rwy 24 preset low ints dusk-0600Z†, after 0600Z‡ ACTIVATE—CTAF. Phone available on arpt.

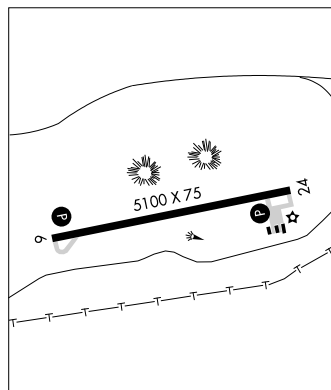
COMMUNICATIONS: CTAF 122.9

SALT LAKE CENTER APP/DEP CON 127.75.

RADIO AIDS TO NAVIGATION: NOTAM FILE MLS.

MILES CITY (H) VORW/DME 112.1 MLS Chan 58 N46°22.93'

W105°57.21' 210° 44.8 NM to fld. 2640/15E.

**COLUMBUS** (6S3) 0 SE UTC-7(-6DT) N45°37.83' W109°14.36'

GREAT FALLS

3575 B S4 FUEL 100LL NOTAM FILE GTF

L-13D

RWY 10-28: H3814X75 (ASPH) S-12.5 MIRL

RWY 10: Bldg.

RWY 28: PAPI(P2R)—GA 3.0° TCH 27'. Brush.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z†. ACTIVATE MIRL Rwy 10-28 and PAPI Rwy 28—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE BIL.

BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51' W108°37.48' 234° 28.0 NM to fld. 3808/14E.

CONDON USFS (S04) 1 NW UTC-7(-6DT) N47°32.33' W113°43.22'

GREAT FALLS

3686 NOTAM FILE GTF

RWY 13-31: 2575X135 (TURF)

RWY 13: Trees.

RWY 31: Trees.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 13-31 measured from Rwy 31 marked thld to end of Rwy 13 maintained area. Rwy 31 thld marked with white cement. Trees in all transitional surfaces.

COMMUNICATIONS: CTAF 122.9**CONNER****WEST FORK LODGE** (4U7) 5 SW UTC-7(-6DT) N45°51.15' W114°13.18'

GREAT FALLS

4247 FUEL 100LL NOTAM FILE GTF

RWY 02-20: 2600X65 (GRVL-TURF)

RWY 02: Tree.

RWY 20: Road.

AIRPORT REMARKS: Attended continuously. Rwy 02-20 plowed winter months. Livestock, birds and wildlife on and in/ov arpt. Recommended for experienced pilots only, steep terrain surrounding airport. Recommended takeoff Rwy 20 when conditions allow.

COMMUNICATIONS: CTAF 122.9

CONRAD (S01) 1 W UTC-7(-6DT) N48°10.12' W111°58.59'

GREAT FALLS

3545 B S2 FUEL 100LL NOTAM FILE GTF

L-13C

RWY 06-24: H4601X75 (ASPH) S-12.5 MIRL 0.4% up SW

IAP

RWY 06: P-line.

RWY 24: REIL. PAPI(P2L)—GA 3.0° TCH 25'. Tree.

RWY 15-33: 2800X100 (TURF)

RWY 15: P-line.

RWY 33: Road.

AIRPORT REMARKS: Attended May-Sep 1500-0300Z†, Oct-Apr

1500-0100Z†. For fuel call 406-271-4060. Intermittent snow removal be alert during winter months. Rwy 15-33 has tire ruts just north of pavement and large gopher holes. Rwy 15-33 marked with plastic cones full length. MIRL Rwy 06-24, PAPI and REIL Rwy 24 ops dusk-0500Z†. Rwy 24 PAPI OTS indef. After 0500Z† ACTIVATE MIRL Rwy 06-24, PAPI and REIL Rwy 23—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

CUT BANK RCO 122.2 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 133.4

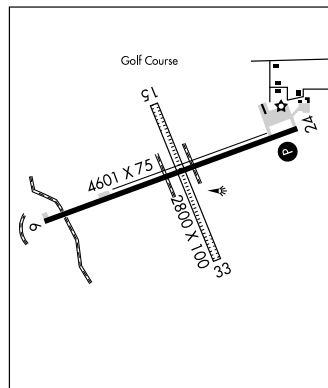
RADIO AIDS TO NAVIGATION: NOTAM FILE CTB.

CUT BANK (L) VORTACW 114.4 CTB Chan 91 N48°33.90'

W112°20.60' 131° 28 NM to fld. 3780/17E.

NDB (MHW) 293 CRD N48°11.14' W111°54.85' 231° 2.7

NM to fld. NOTAM FILE GTF.



COPPERTOWN N46°01.92' W112°44.85' NOTAM FILE BTM.

GREAT FALLS

(L) VORW/DME 111.6 CPN Chan 53 098° 11.4 NM to Bert Mooney. 5780/16E.

L-13C

VOR unusable:

346°-100° byd 20 NM blo 15,000'

185°-200° byd 30 NM

157°-275° byd 22 NM blo 16,000'

218°-225° byd 30 NM

DME unusable:

346°-127° byd 22 NM blo 15,000'

157°-275° byd 22 NM blo 17,000'

185°-200° byd 30 NM

218°-225° byd 30 NM

RCO 122.65 (GREAT FALLS RADIO)

CULBERTSON

BIG SKY FLD (S85) 1 NE UTC-7(-6DT) N48°09.20' W104°30.23'

BILLINGS

1954 B S4 FUEL 100LL NOTAM FILE GTF

L-13E

RWY 08-26: H3800X60 (ASPH) S-4 MIRL

RWY 08: Road. RWY 26: PAPI(P2L)—GA 3.0° TCH 27'.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z†, on call all hours 406-787-6277/6325. Rwy 08-26 has cracks and sfc spalling.

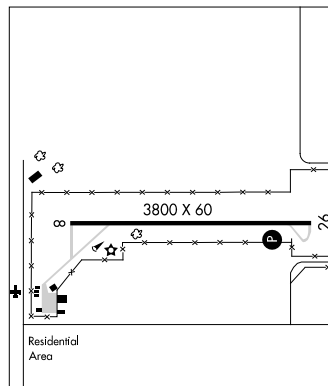
ACTIVATE MIRL Rwy 08-26 and PAPI Rwy 26—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE ISN.

WILLISTON (L) VORTACW 116.3 ISN Chan 110 N48°15.21'

W103°45.04' 247° 30.8 NM to fld. 2372/12E. HIWAS.



CUT BANK MUNI (CTB) 3 SW UTC-7(-6DT) N48°36.50' W112°22.57'

3854 B S4 FUEL 100LL, JET A AOE NOTAM FILE CTB
 RWY 13-31: H5300X75 (ASPH-PFC) S-12 MIRL 0.3% up NW

RWY 31: REIL VASI(V4L)—GA 3.0° TCH 43'.

RWY 05-23: H5299X75 (ASPH-PFC) S-12 MIRL 0.3% up SW

RWY 23: PAPI(P2L)—GA 3.0° TCH 40'

AIRPORT REMARKS: Attended 1530-0030Z+. Fuel after hours call 406-873-8683. Agricultural acft ops from April-August. ACTIVATE MIRL Rwy 05-23 and Rwy 13-31, PAPI Rwy 23, REIL Rwy 31—CTAF. VASI Rwy 31 on 24 hours. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS 119.025 (406) 873-2939.

COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.2 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 133.4

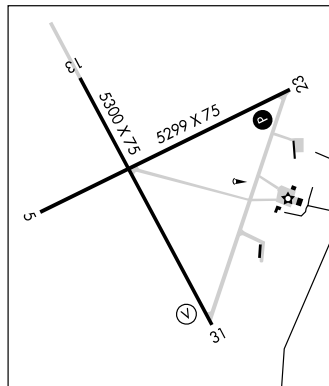
RADIO AIDS TO NAVIGATION: NOTAM FILE CTB.

(L) VORTACW 114.4 CTB Chan 91 N48°33.90'
 W112°20.60' 316° 2.9 NM to fld. 3780/17E.

GREAT FALLS

H-1D, L-13C

IAP

**DAWSON COMMUNITY** (See GLENDIVE)**DEER LODGE-CITY-CO** (38S) 2 W UTC-7(-6DT) N46°23.20' W112°45.87'

4693 B FUEL 100LL, JET A NOTAM FILE GTF

RWY 12-30: H5799X75 (ASPH) S-30, D-36 MIRL

RWY 12: PAPI(P2L)—GA 3.75° TCH 35'.

RWY 30: PAPI(P2L)—GA 3.0° TCH 24'.

AIRPORT REMARKS: Unattended. Phone on fld. ACTIVATE MIRL Rwy 12-30 and PAPI Rwy 12 and Rwy 30—CTAF.

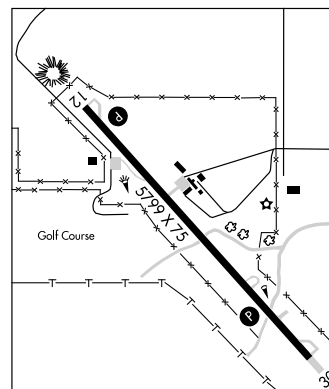
COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE BTM.

COPPERTOWN (L) VORW/DME 111.6 CPN Chan 53 N46°01.92'
 W112°44.85' 342° 21.3 NM to fld. 5780/16E.

GREAT FALLS

H-1D, L-13C



DELL FLIGHT STRIP (4U9) 1 NW UTC-7(-6DT) N44°44.14' W112°43.20'

GREAT FALLS

H-1D, L-13C

6007 B NOTAM FILE GTF

RWY 14-32: H7000X70 (ASPH) MIRL

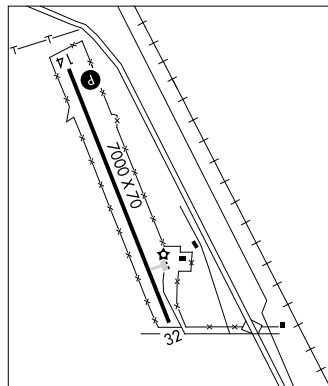
RWY 14: PAPI(P2L)—GA 3.5° TCH 30'. P-line.

RWY 32: Road.

AIRPORT REMARKS: Unattended. Deer on and in/ov arpt. Powerline marked with red globe. Snow removal irregular. Rwy marked with numbers only. ACTIVATE MIRL Rwy 14-32 and PAPI Rwy 14—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE BOI.**DUBOIS (H) VORTACW** 116.9 DBS Chan 116 N44°05.33'

W112°12.56' 316° 44.6 NM to fld. 4915/15E.

**DENTON** (5UØ) 0 N UTC-7(-6DT) N47°19.25' W109°56.51'

GREAT FALLS

3592 NOTAM FILE GTF

RWY 09-27: 2550X180 (TURF)

RWY 09: Fence.

RWY 27: Road.

AIRPORT REMARKS: Unattended. Migratory bird flocks around sewage lagoons N of Rwy 27 thld. Rwy 09-27 multiple gopher holes and large badger holes in rwy, especially eastern 900' of rwy. Rwy 09-27 numerous gopher holes in rwy surface. Only center 50' of rwy is mowed. Rwy 09-27 has +3' wooden boundary markers located at each rwy end.

COMMUNICATIONS: CTAF 122.9**DILLON** (DLN) 4 NE UTC-7(-6DT) N45°15.32' W112°33.15'

GREAT FALLS

H-1D, L-13C

IAP

5241 B S4 FUEL 100LL, JET A NOTAM FILE DLN

RWY 17-35: H6500X75 (ASPH) S-60, D-75 MIRL 1.3% up S

RWY 17: PAPI(P2L)—GA 3.0° TCH 34'.

RWY 35: Road.

RWY 04-22: H3599X60 (ASPH) S-30, D-50 MIRL

RWY 04: Road.

RWY 22: PAPI(P2L)—GA 3.0° TCH 27'. Road.

AIRPORT REMARKS: Attended 1500-0000Z+. For arpt attendant after hrs call 406-660-0734. Rwy visibility blocked by hangers/buildings on Rwy 17, confirm presence of other acft prior to txf. All departures prohibited on Rwy 04 due to rwy visibility blocked by hangers/buildings. ACTIVATE MIRL Rwy 17-35 and Rwy 04-22; PAPI Rwy 17 and Rwy 22—CTAF.

WEATHER DATA SOURCES: ASOS 135.225 (406) 683-5470.**COMMUNICATIONS:** CTAF/UNICOM 122.8

RCO 122.15 (GREAT FALLS RADIO)

® SALT LAKE CENTER APP/DEP CON 132.4

RADIO AIDS TO NAVIGATION: NOTAM FILE DLN.

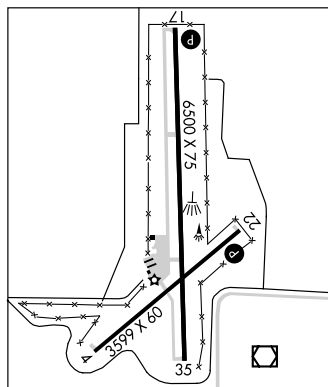
(H) VOR/DME 113.0 DLN Chan 77 N45°14.91'

W112°32.83' at fld. 5260/18E.

DME portion unusable:

045°-090° byd 30 NM blo 11,700'

090°-140° byd 30 NM blo 12,600'



140°-180° byd 30 NM blo 11,500'

275°-290° byd 30 NM blo 12,500'

DRUMMOND (M26) 3 SW UTC-7(-6DT) N46°37.25' W113°12.30'

GREAT FALLS

4245 NOTAM FILE 3DU

RWY 07-25: 2400X125 (TURF)

RWY 09: Road.

RWY 27: Fence.

AIRPORT REMARKS: Unattended. Rwy 07-25 extremely soft when wet. Snow removal irregular. Rwy 07-25 marked with white cones full rwy length.

COMMUNICATIONS: CTAF 122.9**DUTTON** (5U1) 1 E UTC-7(-6DT) N47°50.83' W111°41.90'

GREAT FALLS

3699 B NOTAM FILE GTF

RWY 16-34: 3130X115 (ASPH-TURF) LIRL (NSTD)

RWY 34: Hill.

AIRPORT REMARKS: Unattended. Snow removal intermittent. Rwy 16-34 2430'X40' ASPH strip S end center portion followed by 700'X115' TURF. TURF portion in poor condition. Rwy 16 thld marked with yellow corrugated tin panels. Rwy 16-34 NSTD LIRL. Rwy edge lghts dsplcd from Rwy 34 70' right 55' left from rwy centerline. 2750' of rwy lghtd for ngt ops.

COMMUNICATIONS: CTAF 122.9**EDGAR & OBIE** (See CHINOOK)**EKALAKA** (97M) 2 SE UTC-7(-6DT) N45°52.68' W104°32.25'

BILLINGS

3503 B NOTAM FILE GTF

RWY 13-31: H3800X75 (ASPH) S-12.5 MIRL

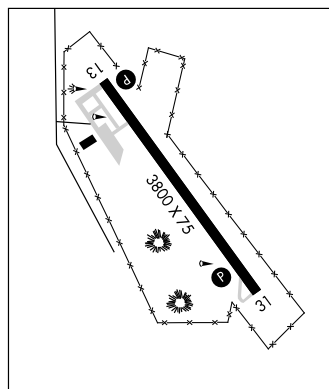
RWY 13: PAPI(P2L)—GA 3.0° TCH 24'.

RWY 31: PAPI (P2L)—GA 3.0° TCH 29'.

AIRPORT REMARKS: Unattended. Beacon is located ¾ mile NE on hill top. PAPI Rwy 13 OTS indef. MIRL Rwy 13-31 and PAPI Rwy 13 and Rwy 31 preset medium ints dusk-0700Z, other hours ACTIVATE—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLS.

MILES CITY (H) VORW/DME 112.1 MLS Chan 58 N46°22.93' W105°57.21' 102° 66.4 NM to fld. 2640/15E.

**ENNIS-BIG SKY** (EKS) 6 SE UTC-7(-6DT) N45°16.46' W111°38.93'

GREAT FALLS

5423 B S2 FUEL 100, JET A NOTAM FILE GTF

RWY 16-34: H6600X75 (ASPH) S-12.5, D-18 MIRL

RWY 16: PAPI(P2L)—GA 3.0° TCH 21'. Fence. Rgt tfc.

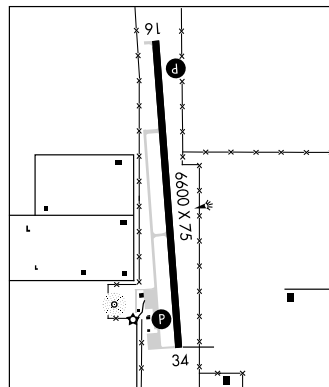
RWY 34: PAPI(P2L)—GA 3.0° TCH 37'. Road.

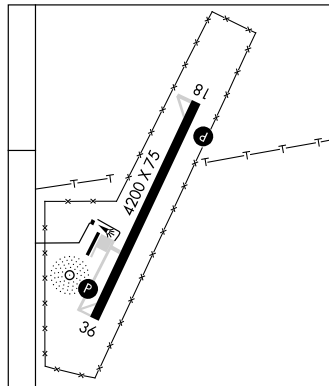
AIRPORT REMARKS: Attended on call. Attended as needed by calling ahead for arpt conditions and availability 406-682-7502. For Jet A fuel after hours call 406-682-7502. ACTIVATE MIRL Rwy 16-34 and PAPI Rwy 16 and Rwy 34—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE BZN.

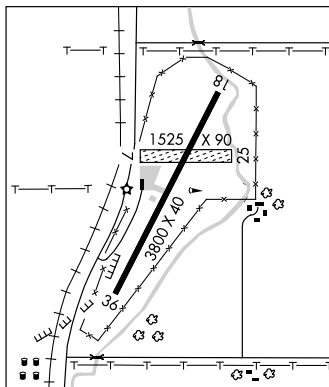
BOZEMAN (H) VORW/DME 112.4 BZN Chan 71 N45°47.03' W111°09.33' 196° 37.0 NM to fld. 4430/18E.

NDB (MHW) 286 EKS N45°15.95' W111°39.08' at fld.
NOTAM FILE GTF. VFR only.



EUREKA (88M) 5 N UTC-7(-6DT) N48°58.43' W115°04.58'**GREAT FALLS**2668 B **FUEL** 100LL NOTAM FILE GTF**L-13B****RWY 18-36:** H4200X75 (ASPH) S-12.5**RWY 18:** PAPI(P2L)—GA 3.0° TCH 40'. Trees.**RWY 36:** PAPI(P2L)—GA 3.0° TCH 40'. Trees.**AIRPORT REMARKS:** Attended on call. Ultralights on and invof arpt. 24 hr self service credit card fuel. Rwy 18-36 STROBE. ACTIVATE STROBE Rwy 18-36 and PAPI Rwy 18 and Rwy 36—CTAF.**WEATHER DATA SOURCES:** AWOS-A 122.9 (406) 889-3366. Plus visibility.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLP.**KALISPELL (H) VORW/DME** 113.2 FCA Chan 79 N48°12.85' W114°10.55' 304° 58.0 NM to fld. 2980/18E.**NDB (MHW)** 392 EUR N48°57.83' W115°05.53' at fld. NOTAM FILE GTF. VFR only.**COMM/NAV/WEATHER REMARKS:** Wx station on arpt, ACTIVATE CTAF 2 clicks.**FAIRFIELD** (5U5) 1 N UTC-7(-6DT) N47°37.75' W111°58.80'**GREAT FALLS**

3989 B NOTAM FILE GTF

L-13C**RWY 18-36:** H3800X40 (ASPH) LIRL (NSTD)**RWY 18:** P-line.**RWY 36:** Building.**RWY 07-25:** 1525X90 (TURF)**RWY 07:** Fence.**RWY 25:** Fence.**AIRPORT REMARKS:** Unattended. Snow removal intermittent. Rwy 18-36 NSTD LIRL, lgts spaced 27' from rwy edges both sides. Thld lgts set back 2' from paved thld. ACTIVATE NSTD LIRL Rwy 18-36—CTAF. Rwy 18-36 LIRL OTS indefinitely.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE GTF.**GREAT FALLS (H) VORTACW** 115.1 GTF Chan 98 N47°27.00' W111°24.73' 279° 25.5 NM to fld. 3672/16E.**FAIRGROUNDS AIRPARK** (See HARDIN)**FAIRVIEW** (5U6) 1 NW UTC-7(-6DT) N47°51.67' W104°04.36'**BILLINGS**

2152 NOTAM FILE GTF

RWY 08-26: 3000X75 (TURF)**RWY 08:** Road.**RWY 26:** Pole.**AIRPORT REMARKS:** Unattended. For arpt conditions or snow removal etc arpt manager 406-433-2415. Rwy 08-26 marked with white cones spaced 200' apart. Thld marked with red cones.**COMMUNICATIONS:** CTAF 122.9**FERNDAL AIRFIELD** (See BIGFORK)**FORSYTH** N46°16.17' W106°31.05' NOTAM FILE GTF.**BILLINGS****NDB (MHW)** 236 FOR 257° 4.4 NM to Tiliitt Fld.**L-13E**

FORSYTH**TILLITT FLD** (1S3) 3 E UTC-7(-6DT) N46°16.27' W106°37.43'

2727 B S4 FUEL 100LL NOTAM FILE GTF

RWY 08-26: H4799X75 (ASPH-PFC) S-12, D-16 MIRL

RWY 08: PAPI(P2L)—GA 3.0° TCH 29'. Trees.

RWY 26: PAPI(P2L)—GA 3.0° TCH 29'. Road.

AIRPORT REMARKS: Attended irregularly. Rwy 26 PAPI OTS indef. MIRL

Rwy 08-26 operates dusk-0500Z†, after 0500Z†

ACTIVATE—CTAF. ACTIVATE PAPI Rwy 08 and Rwy 26—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLS.**MILES CITY (H) VOR/DME** 112.1 MLS Chan 58 N46°22.93'

W105°57.21' 242° 28.7 NM to fld. 2640/15E.

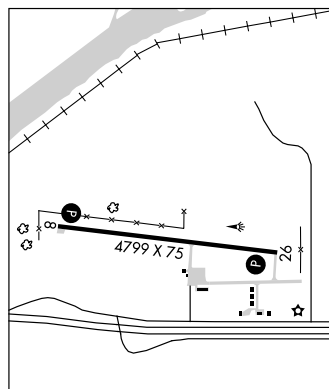
FORSYTH NDB (MHW) 236 FOR N46°16.17' W106°31.05'

257° 4.4 NM to fld. NOTAM FILE GTF.

BILLINGS

L-13D

IAP

**FORT BELKNAP AGENCY** (See HARLEM)**FORT BENTON** (79S) 1 NE UTC-7(-6DT) N47°50.71' W110°38.19'

2869 B S4 FUEL 100LL NOTAM FILE GTF

RWY 05-23: H4300X75 (ASPH) S-12.5 MIRL

RWY 05: PAPI(P2L)—GA 3.0° TCH 40' P-line.

RWY 23: PAPI(P2L) GA 3.0° TCH 40'.

RWY 14-32: 1700X75 (DIRT)

RWY 14: P-line.

AIRPORT REMARKS: Unattended. Call in advance for fuel

406-622-3221/5249/3489. For svcs call 406-622-3489.

ACTIVATE MIRL Rwy 05-23 and PAPI Rwy 05 and Rwy 23—CTAF.

WEATHER DATA SOURCES: AWOS-A 122.8 (406) 622-5976.**COMMUNICATIONS:** CTAF/UNICOM 122.8

® SALT LAKE CENTER APP/DEP CON 133.4

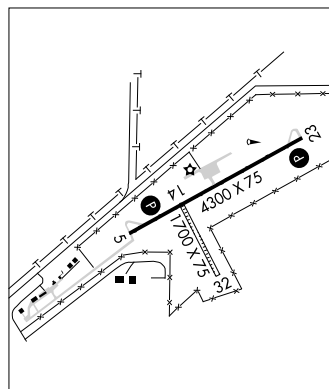
RADIO AIDS TO NAVIGATION: NOTAM FILE GTF.**GREAT FALLS (H) VORTACW** 115.1 GTF Chan 98 N47°27.00'

W111°24.73' 037° 39.4 NM to fld. 3672/16E.

COMM/NAV/WEATHER REMARKS: AWOS-A plus visibility.**GREAT FALLS**

L-13C

IAP

**FORT PECK** (37S) 1 W UTC-7(-6DT) N48°00.30' W106°28.93'

2290 FUEL 100LL NOTAM FILE GTF

RWY 12-30: 4100X125 (TURF)

RWY 12: Thld dsplcd 1300'.

RWY 05-23: 2700X100 (TURF)

RWY 05: P-line. RWY 23: P-line.

AIRPORT REMARKS: Unattended. For fuel call 406-228-2433 or 406-228-4848. Ultralights on and invof arpt.**COMMUNICATIONS:** CTAF 122.9**BILLINGS**

FORT SMITH LANDING STRIP (5U7) 1 N UTC-7(-6DT) N45°19.25' W107°55.87'

BILLINGS

3242 NOTAM FILE GTF

L-13D

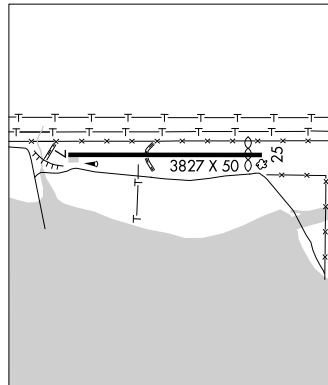
RWY 07-25: H3827X50 (ASPH) S-8

RWY 07: P-line. RWY 25: Thld dsplcd 140'. P-line.

AIRPORT REMARKS: Unattended. Wildlife on and invof rwy. Rwy 07-Be alert: Multiple p-lines of varying elevations and distances invof of arpt.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE BIL.

BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51' W108°37.48' 121° 41.4 NM to fld. 3808/14E.

**FRANK WILEY FLD** (See MILES CITY)**GALLATIN FLD** (See BOZEMAN)**GARDINER** (29S) 2 NW UTC-7(-6DT) N45°03.00' W110°44.80'

GREAT FALLS

5286 FUEL 100, JET A NOTAM FILE GTF

L-13C

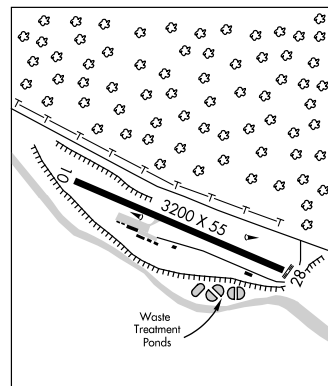
RWY 10-28: H3200X55 (ASPH-AFSC) S-4

RWY 10: Rgt tfc. RWY 28: Hill.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z†. For fuel after hours call 406-848-7794. Rwy lgts for emerg use only. ACTIVATE LIRL Rwy 10-28-CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE LVM.

LIVINGSTON (H) VORW/DME 116.1 LVM Chan 108 N45°42.15'W110°26.55' 183° 41.2 NM to fld. 4650/15E.



GERALDINE (5U8) 0 S UTC-7(-6DT) N47°35.80' W110°15.96'

GREAT FALLS

3173 B NOTAM FILE GTF

L-13D

RWY 07-25: H2900X75 (ASPH) LIRL

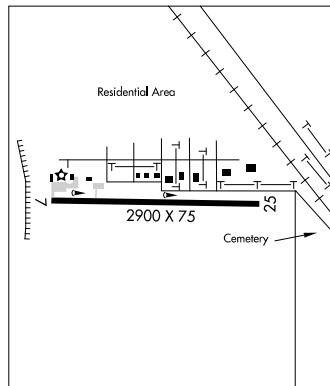
RWY 07: Ground. **RWY 25:** P-line.

AIRPORT REMARKS: Unattended. Rwy 07-25 has 4 shallow holes up to 8' diameter, broken pavement, 25' from the west end. ACTIVATE LIRL Rwy 07-25—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LWT.

LEWISTOWN (H) VORW/DME 112.0 LWT Chan 57 N47°03.18' W109°36.37' 306° 42.3 NM to fld. 4133/15E.



GLACIER PARK INTL (See KALISPELL)

GLASGOW N48°12.92' W106°37.53'. NOTAM FILE GGW.

BILLINGS

(H) VORW/DME 113.9 GGW Chan 86 at Wokal Fld/Glasgow Intl 2280/14E.

H-1E, 2F, L-13D

RCO 122.25 (GREAT FALLS RADIO)

GLASGOW

WOKAL FLD/GLASGOW INTL (GGW) 1 NE UTC-7(-6DT) N48°12.75' W106°36.88'

BILLINGS

2296 B S4 FUEL 100, JET A1 + Class III, ARFF Index A NOTAM FILE GGW

H-1E, 2F, L-13D

RWY 12-30: H5001X100 (ASPH-AFSC) S-55, D-70, ST-89, DT-100 MIRL

IAP

RWY 12: REIL. VASI(V4L)—GA 3.0° TCH 38'.

RWY 30: REIL. VASI(V4L)—GA 3.0° TCH 40'.

RWY 08-26: H5000X75 (ASPH-GRVD) S-25, D-45, DT-75 MIRL

RWY 08: REIL. PAPI(P2L)—GA 3.0° TCH 30'.

RWY 26: REIL. VASI(V2L)—GA 3.0° TCH 26'.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 08: TORA-5000 TODA-5000 ASDA-5000 LDA-5000

RWY 12: TORA-5001 TODA-5001 ASDA-5001 LDA-5001

RWY 26: TORA-5000 TODA-5000 ASDA-6047 LDA-5000

RWY 30: TORA-5001 TODA-5001 ASDA-5231 LDA-5001

AIRPORT REMARKS: Attended 1500-0000Z+. For svc after hrs phone 406-228-4023. After hours credit card fueling. Rwy 12-30 and Rwy 08-26 have distance to go signs, Rwy 12-30 and Rwy 08-26 have rwy sidestripe markers. ACTIVATE MIRL Rwy 08-26 and Rwy 12-30, REIL Rwy 08, Rwy 12, Rwy 26 and Rwy 30 —CTAF. VASI Rwy 12, Rwy 26 and Rwy 30 and PAPI Rwy 08 operate 24 hrs. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS 135.175 (406) 228-8294.

COMMUNICATIONS: CTAF/UNICOM 122.8

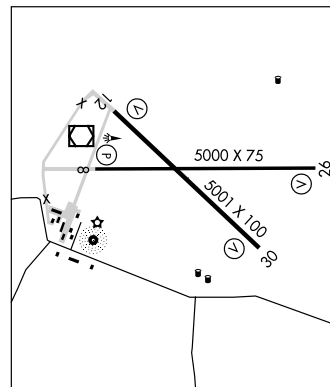
GLASGOW RCO 122.25 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 126.85

RADIO AIDS TO NAVIGATION: NOTAM FILE GGW.

GLASGOW (H) VORW/DME 113.9 GGW Chan 86 N48°12.92' W106°37.53' at fld. 2280/14E.

MILK RIVER NDB (HW) 339 MKR N48°12.47' W106°37.57' at fld.



GLENDALE N47°08.00' W104°48.28' NOTAM FILE GDV.

BILLINGS

NDB (HW) 410 GDV at Dawson Community.

L-13E

RCO 122.55 (GREAT FALLS RADIO)

GLENDEIVE

DAWSON COMMUNITY (GDV) 4 NW UTC-7(-6DT) N47°08.32' W104°48.43'
 2456 B S4 **FUEL** 100LL, JET A Class III, ARFF Index A NOTAM FILE GDV
 RWY 12-30: H5704X100 (ASPH-PFC) S-38, D-50 MIRL

BILLINGS
 H-1E, 2G, L-13E
 IAP

RWY 12: REIL. VASI(V4L)—GA 3.0° TCH 37'. Road.

RWY 30: REIL. VASI(V4L)—GA 3.0° TCH 37'.

RWY 02-20: H3000X60 (ASPH) MIRL

RWY 02: PAPI(P2L)—GA 3.0° TCH 26'.

RWY 20: PAPI(P2L)—GA 3.0° TCH 24'.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 02: TORA-3000 TODA-3000 ASDA-3000 LDA-3000

RWY 12: TORA-5704 TODA-5704 ASDA-5704 LDA-5704

RWY 20: TORA-3000 TODA-3000 ASDA-3000 LDA-3000

RWY 30: TORA-5704 TODA-5704 ASDA-5704 LDA-5704

AIRPORT REMARKS: Attended 1430-0130Z†. MIRL Rwy 02-20 and Rwy 12-30, VASI Rwy 12 and Rwy 30, PAPI Rwy 02 and Rwy 20 opr dusk-0500Z†; after 0500Z† ACTIVATE—CTAF. Rwy 12 and Rwy 30 REIL OTS indef.

WEATHER DATA SOURCES: AWOS-3 135.075 (406) 687-3346.

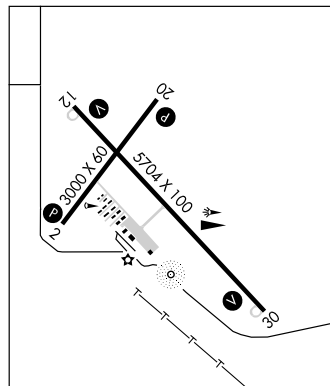
COMMUNICATIONS: CTAF/UNICOM 122.8

GLENDEIVE RCO 122.55 (GREAT FALLS RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE MLS.

MILES CITY (H) VORW/DME 112.1 MLS Chan 58 N46°22.93' W105°57.21' 031° 65.6 NM to fld. 2640/15E.

GLENDEIVE NDB (HW) 410 GDV N47°08.00' W104°48.28' at fld. NOTAM FILE GDV.



GREAT FALLS INTL (GTF) 3 SW UTC-7(-6DT) N47°28.96' W111°22.24'
 3680 B S4 **FUEL** 100LL, JET A OX 1, 2, 3, 4 TPA-4480(800) AOE
 Class I, ARFF Index C NOTAM FILE GTF

GREAT FALLS
 H-1D, L-13C
 IAP, AD

RWY 03-21: H10502X150 (ASPH-GRVD) S-150, D-173, ST-175, DT-331, DDT-555 HIRL CL

RWY 03: TDZL. ALSF2. PAPI(P4L)—GA 3.0° TCH 70'. Road.

RWY 21: REIL. PAPI(P4R)—GA 3.0° TCH 75'.
 0.3% up.

RWY 16-34: H5722X150 (ASPH) S-95, D-120, ST-152, DT-190
 HIRL 0.5% up S

RWY 16: Thld dsplcd 652'.

RWY 34: PAPI(P4L)—GA 3.0° TCH 50'.

RWY 07-25: H4294X75 (ASPH-PFC) S-25 MIRL 0.4% up E

RWY 25: PAPI(P4L)—GA 3.3° TCH 40'.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 16: TORA-5722 TODA-5722 ASDA-5070 LDA-5070

RWY 34: TORA-5070 TODA-5070 ASDA-5070 LDA-5070

ARRESTING GEAR/SYSTEM

RWY 03 BAK-14 BAK-12B(B) (1400')

BAK-14 BAK-12B(B) (1500') RWY 21

AIRPORT REMARKS: Attended continuously. Birds on and invov arpt. Rwy 07-25 not avbl for air carrier tkf and ldg of acft with more than 30 passenger seats. Rwy 03 RVR touchdown, midfield, rollout avbl. Rwy 07-25 between Rws 03-21 and 16-34 unrestricted weight and avbl for air carrier taxiing acft. REIL Rwy 21 opr continuously when the rwy lgts are on. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS (406) 452-9844.

COMMUNICATIONS: ATIS 126.6 UNICOM 122.95

RCO 122.6 (GREAT FALLS RADIO)

® **APP/DEP CON** 128.6

TOWER 118.7 **GND CON** 121.7 **CLNC DEL** 121.7

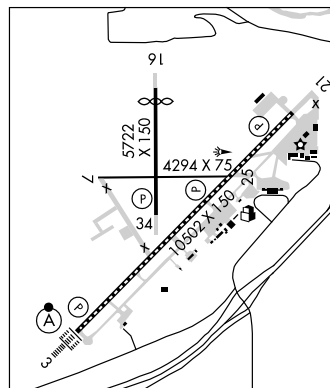
AIRSPACE: TRSA svc ctc **APP CON** on 128.6

RADIO AIDS TO NAVIGATION: NOTAM FILE GTF.

(H) **VORTACW** 115.1 GTF Chan 98 N47°27.00' W111°24.73' 025° 2.6 NM to fld. 3672/16E.

TRULY NDB (HW) 371 ITU N47°21.95' W111°22.37' 345° 7.0 NM to fld.

ILS/DME 111.3 I-SMR Chan 50 Rwy 03. Class IIIE.



HAMILTON

RAVALLI CO (6S5) 1 E UTC-7(-6DT) N46°15.09' W114°07.53'
 3642 B S4 FUEL 100LL, JET A TPA-4442 (800) NOTAM FILE GTF
RWY 16-34: H4200X75 (ASPH-PFC) S-17, D-25 MIRL 0.9% up S

RWY 16: PAPI(P2L)—GA 3.0° TCH 35'. Trees.

RWY 34: PAPI(P2L)—GA 3.3° TCH 25'. Trees.

AIRPORT REMARKS: Attended 1500-0000Z†. Ultralight activity on and in/ovf arpt. Sailplane on and in/ovf arpt during dalgt hours. Loose asph material on parallel twy for Rwy 16-34. Twy markings faded/missing. ACTIVATE MIRL Rwy 16-34 and PAPI Rwy 16 and Rwy 34—CTAF. For MIRL Rwy 16-34 during dalgt hours ctc arpt manager 406-375-5473.

WEATHER DATA SOURCES: AWOS-A 119.825 (406) 375-9149, press *3. Plus visibility.

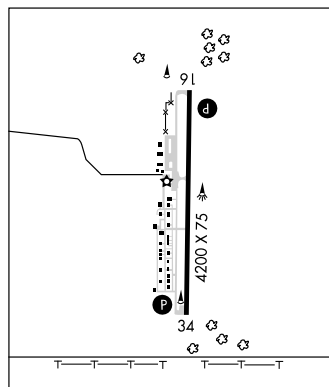
COMMUNICATIONS: CTAF/UNICOM 122.8

SPOKANE APP/DEP CON 124.9

SALT LAKE CENTER APP/DEP CON 133.4 North, 132.4 South

RADIO AIDS TO NAVIGATION: NOTAM FILE MSO.

MISSOULA (L) VORW/DME 112.8 MSO Chan 75 N46°54.48'
 W114°05.02' 166° 39.4 NM to fld. 3202/17E.



GREAT FALLS
 L-13C
 IAP

ROTORCRAFT HELIPORT (M62) 2 S UTC-7(-6DT) N46°12.40' W114°09.18'

3630 S4 NOTAM FILE GTF

HELIPAD H1: H55X50 (CONC)

HELIPORT REMARKS: Attended Mon-Fri 1500-0000Z†.

COMMUNICATIONS: CTAF/UNICOM 122.8

GREAT FALLS

HARDIN

FAIRGROUNDS AIRPARK (F02) 1 SE UTC-7(-6DT) N45°43.50' W107°36.04'

2911 B S2 NOTAM FILE GTF

RWY 04-22: H3542X60 (ASPH) S-15, D-23 LIRL (NSTD)

RWY 04: Thld dspcd 224'. Tree.

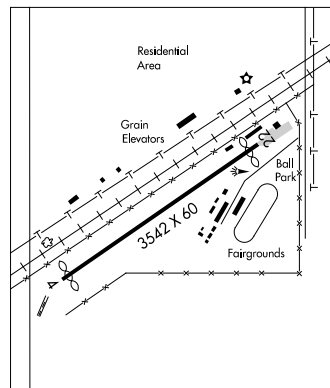
RWY 22: Thld dspcd 168'. Antenna.

AIRPORT REMARKS: Attended Mon-Fri 1600-0000Z†. Unattended during winter months. Rotating beacon OTS indef. Dspcd thld marked but not lgtd, thld dspcd for day ops only. Rwy 04-22 large cracks with weeds growing through surface and encroaching borders. Rwy 04-22 NSTD LIRL thld lgts 6' forward of marked thld and spaced 4' apart starting 5' from rwy edge. Rwy 04 thld lgts 25' forward of end of rwy.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE BIL.

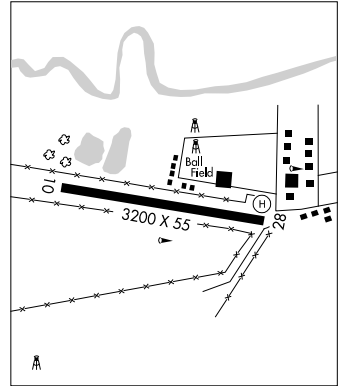
BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51'
 W108°37.48' 082° 43.3 NM to fld. 3808/14E.



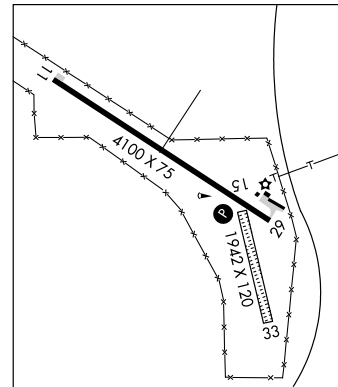
BILLINGS
 L-13D

HARLEM**FORT BELKNAP AGENCY** (U09) 4 SE UTC-7(-6DT) N48°28.87' W108°46.14'**BILLINGS**
L-13D

2374 NOTAM FILE GTF

RWY 10-28: H3200X55 (ASPH) S-4**RWY 28:** Tree.**AIRPORT REMARKS:** Unattended. Paved and marked helipad north of apch end of Rwy 28.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.**HAVRE (L) VORW/DME** 111.8 HVR Chan 55 N48°32.43'
W109°46.20' 079° 40.1 NM to fld. 2583/16E.**HELIPAD H1:** H50X50 (ASPH)**HARLEM** (48S) 3 N UTC-7(-6DT) N48°33.97' W108°46.41'**BILLINGS**
L-13D

2643 B NOTAM FILE GTF

RWY 11-29: H4100X75 (ASPH-PFC) S-12.5 MIRL**RWY 29:** PAPI(P2L)—GA 3.0° TCH 32'. Road.**RWY 15-33:** 1942X120 (TURF)**AIRPORT REMARKS:** Unattended. Rwy 15-33 has large gopher holes throughout. Phones avbl in terminal bldg. Key 122.9 3 times to enter bldg. Rwy 15-33 marked with white cones spaced 200'.
ACTIVATE MIRL Rwy 11-29 and PAPI Rwy 29—CTAF.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.**HAVRE (L) VORW/DME** 111.8 HVR Chan 55 N48°32.43'
W109°46.20' 071° 39.8 NM to fld. 2583/16E.**HARLOWTON** N46°26.10' W109°49.95' NOTAM FILE GTF.**GREAT FALLS**
L-13D**NDB (HW)** 242 HWQ 304° 1.5 NM to Wheatland Co Airport At Harlowton. (VFR only).**RCO** 122.4 (GREAT FALLS RADIO)

HARLOWTON**WHEATLAND CO AT HARLOWTON**

(HWQ) 2 NW UTC-7(-6DT)

GREAT FALLS
L-13D

N46°26.92' W109°51.17'

4311 B NOTAM FILE 3HT

RWY 08-26: H4200X60 (ASPH) S-12 MIRL

RWY 08: Brush. RWY 26: PAPI(P2L)—GA 3.0° TCH 34'. Poles.

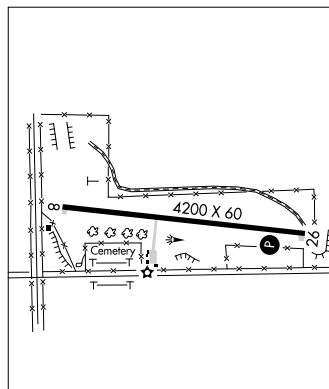
AIRPORT REMARKS: Unattended. Deer on and in vicinity of rwy, especially during nighttime hours. ACTIVATE MIRL Rwy 08-26 and PAPI Rwy 26—CTAF.

COMMUNICATIONS: CTAF 122.9

HARLOWTON RCO 122.4 (GREAT FALLS RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE LWT.

LEWISTOWN (H) VORW/DME 112.0 LWT Chan 57 N47°03.18' W109°36.37' 181° 37.7 NM to fld. 4133/15E.

**HAUSER** N46°34.13' W111°45.48'. NOTAM FILE HLN.GREAT FALLS
L-13C

NDB (MHW) 386 HAU 268° 9.6 NM to Helena Rgnl. Unmonitored when Helena tower closed.

HAVRE CITY-CO (HVR) 3 W UTC-7(-6DT)

N48°32.58' W109°45.74'

GREAT FALLS
H-1D, L-13D
IAP

2591 B S4 FUEL 100LL, JET A Class III, ARFF Index A NOTAM FILE HVR

RWY 08-26: H5205X100 (ASPH) S-50, D-50, DT-75 MIRL

RWY 08: REIL. VASI(V4L)—GA 3.0° TCH 40'.

RWY 26: REIL. VASI(V4L)—GA 3.0° TCH 38'. Road.

RWY 03-21: H3699X60 (ASPH) S-12.5 MIRL

RWY 21: PAPI(P2R)—GA 3.0° TCH 22'. Hill.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 03: TORA-3699 TODA-3699 ASDA-3699 LDA-3699

RWY 08: TORA-5205 TODA-5205 ASDA-5205 LDA-5205

RWY 21: TORA-3699 TODA-3699 ASDA-3699 LDA-3699

RWY 26: TORA-5205 TODA-5205 ASDA-5205 LDA-5205

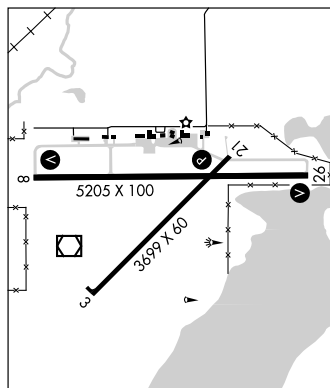
AIRPORT REMARKS: Attended 1300-0230Z±. Afld sfc condition unmonitored between 0230Z± and 1300Z±. Deer on and in ovf arpt. Potential large flocks of waterfowl near apch end of Rwy 26. ACTIVATE MIRL Rwy 03-21, REIL Rwy 08 and Rwy 26, VASI Rwy 08 and Rwy 26 and PAPI Rwy 21—CTAF.

WEATHER DATA SOURCES: ASOS 135.225 (406) 265-6638.**COMMUNICATIONS:** CTAF/UNICOM 122.8

RCO 123.65 (GREAT FALLS RADIO)

AIRSPACE: CLASS E svc 1300-2100Z± other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE HVR.

(L) VORW/DME 111.8 HVR Chan 55 N48°32.43' W109°46.20' at fld. 2583/16E.

**HEBBELMAN** (See CHINOOK)

HELENA

HELENA RGNL (HLN)(KHLN) CIV/MIL/ARNG 2 NE UTC-7(-6DT) N46°36.41' W111°58.97' 3877 B S4 **FUEL** 80, 100, 100LL, JET A OX 1,3 LRA Class I, ARFF Index B
NOTAM FILE HLN

GREAT FALLS
H-10, L-13C
IAP, DIAP, AD

Rwy 09-27: H9000X150 (ASPH-PFC) S-100, D-160, ST-175, DT-250 **HIRL**

Rwy 09: REIL. VASI(V4L)—GA 3.0° TCH 45'. Ground. 0.3% down

Rwy 27: MALSR. VASI(V4L)—GA 3.0° TCH 55'. Rgt ttc.

Rwy 05-23: H4644X75 (ASPH-PFC) S-21, D-30 **MIRL** 1.2% up SW

Rwy 05: Road.

Rwy 23: PAPI(P2L)—GA 3.0° TCH 40'. Fence. Rgt ttc.

Rwy 16-34: H2989X75 (ASPH) S-21, D-30 **MIRL** 1.7% up SE

Rwy 34: Ground. Rgt ttc.

MILITARY SERVICE: FUEL A, J8 (NC-80, 100, 100LL) 1200-1900Z†,

other times 1 hr PN required, C406-442-2910. Service fee \$50.

AIRPORT REMARKS: Attended 1200-0800Z†. ARFF coverage provided for scheduled Part 121 air carriers only exc with prior approval—call 406-442-2821. Rwy 16-34 and Rwy 05-23 (except between Twy F and Rwy 09-27) not available for air carrier use by acft with greater than 30 passenger seats. Twys A, B, and C between Twy A and Rwy 34 not available for air carrier use by acft with greater than 30 passenger seats. When tower closed ACTIVATE HIRL Rwy 09-27, MIRL Rwy 05-23 and Rwy 16-34, REIL Rwy 09. MALSR Rwy 27—CTAF. Ldg fee for all commercial acft and all acft over 10,000 pounds. Flight Notification Service (ADCUS) avbl. NOTE: See SPECIAL NOTICE.

MILITARY REMARKS: ARNG Opr Mon-Fri 1400-0030Z†, except holidays. Exercise caution while taxiing, AASF ramp not stressed for large acft. Ctc flight ops for ramp advisory 126.2, DSN 324-3055/56, C406-324-3055/56. No trans svc Sat, Sun, holidays or after 2300Z† Mon-Fri.

WEATHER DATA SOURCES: ASOS (406) 443-4317.

COMMUNICATIONS: CTAF 118.3 ATIS 120.4 **UNICOM** 122.95

RCO 122.55 255.4 (GREAT FALLS RADIO)

APP/DEP CON 119.5 229.4 (Mon-Fri 1300-0700Z†, Sat-Sun 1300-0500Z†)

SALT LAKE CENTER APP/DEP CON 133.4 285.4 (Mon-Fri 0700-1300Z†, Sat-Sun 0500-1300Z†)

TOWER 118.3 257.8 (Mon-Fri 1300-0700Z†, Sat-Sun 1300-0500Z†) **GND CON** 121.9

ARNG OPS 40.65 126.2 321.45

AIRSPACE: CLASS D svc Mon-Fri 1300-0700Z†, Sat-Sun 1300-0500Z† other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE HLN.

(H) **VORTACW** 117.7 HLN Chan 124 N46°36.41' W111°57.21' 254° 1.2 NM to fld. 3823/16E.

VOR unusable:

035°-050° byd 35 NM blo 12,000'

203°-213° byd 22 NM blo 13,000'

105°-165° byd 25 NM blo 17,000'

185°-230° byd 25 NM blo 17,500'

165°-185° byd 25 NM blo 13,500'

230°-270° byd 25 NM blo 12,500'

DME unusable:

035°-070° byd 35 NM blo 13,000'

185°-210° byd 25 NM

105°-210° byd 15 NM blo 11,100'

203°-213° byd 22 NM blo 13,000'

105°-210° byd 20 NM blo 12,000'

210°-250° byd 15 NM blo 12,000'

105°-150° byd 25 NM

210°-250° byd 25 NM blo 17,500'

150°-165° byd 25 NM blo 17,000'

250°-300° byd 25 NM blo 14,000'

165°-185° byd 25 NM blo 13,500'

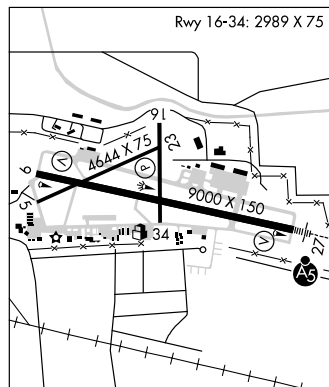
320°-035° byd 25 NM blo 13,000'

CAPITOL NDB (HW) 335 CVP N46°36.40' W111°56.23' 254° 1.9 NM to fld.

NDB unmonitored when tower closed.

HAUSER NDB (MHW) 386 HAU N46°34.13' W111°45.48' 268° 9.6 NM to fld. Unmonitored when tower closed.

ILS 110.1 I-HLN Rwy 27. ILS unmonitored when tower closed. LOC BC unusable byd 22° right of course, unusable within 2.7 DME.



MOUNTAIN LAKES FLD (5M7) 11 NE UTC-7(-6DT) N46°37.85' W111°48.40' **GREAT FALLS**
 4250 NOTAM FILE GTF
RWY 17-35: 2250X60 (TURF)
RWY 07-25: 1570X60 (TURF)
RWY 07: P-line.
AIRPORT REMARKS: Attended irregularly. Phone arpt manager for rwy conditions prior to landing. Irrigation pipes and livestock invof rwys. Rapidly rising mountainous terrain AER 25. Rwy 07-25 and Rwy 17-35 soft when wet. Rwy 07-25 has short apch each end rwy due to length and p-line obstruction.
COMMUNICATIONS: CTAF/UNICOM 122.8

HINSDALE (6U5) 0 SE UTC-7(-6DT) N48°23.25' W107°04.12' **BILLINGS**
 2220 NOTAM FILE GTF
RWY 07-25: 2200X75 (TURF) LIRL (NSTD)
RWY 07: Road.
RWY 10-28: 2160X200 (TURF)
RWY 10: Road.
RWY 16-34: 1960X75 (TURF)
RWY 16: P-line. **RWY 34:** Fence.
AIRPORT REMARKS: Unattended. Rwys soft when wet. Hay bales and farm equipment adjacent to rwy. Rwys not clearly defined. Rwy 16-34, Rwy 07-25 and Rwy 10-28 marked with white cones full length of rwy. P-lines marked with globes. Rwy 07-25 NSTD LIRL 335' spacing between lgts, one thld lgt each end. For rwy lgts phone 406-364-2272/2387.
COMMUNICATIONS: CTAF 122.9

HOGELAND (6U6) 1 NW UTC-7(-6DT) N48°51.53' W108°39.56' **BILLINGS**
 3138 B NOTAM FILE GTF
RWY 07-25: 3140X60 (TRTD) LIRL
RWY 25: Road.
RWY 16-34: 1230X50 (TURF)
RWY 16: Road. **RWY 34:** Building.
AIRPORT REMARKS: Unattended. Rwy 16-34 for emergency use only, road and drainage ditch parallel rwy on east side.
COMMUNICATIONS: CTAF 122.9

HORTON N46°24.73' W105°56.30'. NOTAM FILE MLS. **BILLINGS**
NDB (HW) 320 HTN 051° 2.4 NM to Frank Wiley Fld. **L-13E**

HOT SPRINGS (S09) 2 E UTC-7(-6DT) N47°36.75' W114°36.81' **GREAT FALLS**
 2763 B NOTAM FILE GTF
RWY 06-24: 3550X45 (ASPH-TRTD) MIRL
RWY 06: P-line. **RWY 24:** Thld dsplcd 411. Road.
AIRPORT REMARKS: Unattended. Ultralights on and in vicinity of arpt. Occasional snow removal. Rwy 06-24 asphalt gravel composition full length. Rwy 24 has 411' unlighted, 2169' lgtd at ngt. Rwy 06-24 cones adjacent to MIRL full length and dsplcd thld marked with white cones. Rwy numbers 4'x8' in measure, thld line and rwy lines NSTD.
COMMUNICATIONS: CTAF 122.9

HYSHAM (6U7) 2 E UTC-7(-6DT) N46°17.37' W107°11.75' **BILLINGS**
 2624 B NOTAM FILE GTF
RWY 07-25: 3060X45 (ASPH-TRTD) LIRL
AIRPORT REMARKS: Unattended. Numerous rwy lights inop. 1060' dirt extension east of Rwy 7 thld. ACTIVATE LIRL Rwy 07-25—CTAF.
COMMUNICATIONS: CTAF 122.9

JORDAN (JDN) 2 NW UTC-7(-6DT) N47°19.73' W106°57.16'

BILLINGS

2662 B NOTAM FILE JDN

L-13D

RWY 10-28: H4300X75 (ASPH-PFC) S-12.5 MIRL

RWY 10: Fence.

RWY 28: PAPI(P2L)—GA 3.0° TCH 29'. Road.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 10-28 and PAPI Rwy 28—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GGW.

GLASGOW (H) VOR/DME 113.9 GGW Chan 86 N48°12.92' W106°37.53' 180° 54.9 NM to fld. 2280/14E.

NDB (MHW) 263 JDN N47°20.00' W106°56.29' at fld (VFR use only). NOTAM FILE GTF.

JUDITH MOUNTAIN N47°13.03' W109°13.31'

GREAT FALLS

RCO 122.2 (GREAT FALLS RADIO)

L-13D

KALISPELL N48°12.85' W114°10.55' NOTAM FILE FCA

GREAT FALLS

(H) **VOR/DME** 113.2 FCA Chan 79 229° 5.6 NM to Kalispell City. 2980/18E.

H-1C, L-13C

VOR/DME unusable:

350°-010° byd 10 NM blo 23,000'

160°-280° byd 30 NM blo 13,000'

010°-070° byd 10 NM

VOR portion unusable:

070°-088° byd 20 NM blo 16,000'

088°-113° byd 35 NM blo 16,000'

088°-113° byd 22 NM blo 13,000'

DME unusable:

070°-113° byd 20 NM blo 16,000'

070°-113° byd 37 NM

KALISPELL

GLACIER PARK INTL (GPI) 6 NE UTC-7(-6DT) N48°18.63' W114°15.36'

GREAT FALLS

2977 B S4 **FUEL** 100LL, JET A LRA Class I, ARFF Index B NOTAM FILE FCA

H-1C, L-13C

RWY 02-20: H9007X150 (ASPH-PFC) S-80, D-170, ST-175, DT-250 HIRL

IAP, AD

RWY 02: MALSR. PAPI(P4L)—GA 3.0° TCH 50'.

RWY 20: REIL. PAPI(P4L)—GA 3.0° TCH 47'.

RWY 12-30: H3504X75 (ASPH-PFC) S-12 MIRL

RWY 12: Trees.

RWY 30: PAPI(P4L)—GA 3.0° TCH 26'. Tree.

AIRPORT REMARKS: Attended continuously. CLOSED to unscheduled air carrier ops with more than 30 passenger seat except PPR call arpt manager 406-257-5994. Rwy 02-20 south 1000' GRVD, balance PFC. ACTIVATE HIRL Rwy 02-20, MIRL Rwy 12-30, MALSR Rwy 02, REIL Rwy 20 and PAPI Rwy 02 and Rwy 20—CTAF.

WEATHER DATA SOURCES: ASOS 132.625 (406) 756-8879.

COMMUNICATIONS: CTAF 124.55 ATIS 132.625 UNICOM 122.95

LAKESIDE RCO 122.5 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 133.4

TOWER 124.55 (1500-0700Z) **GND CON** 121.6

AIRSPACE: CLASS D svc 1500-0700Z other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE FCA.

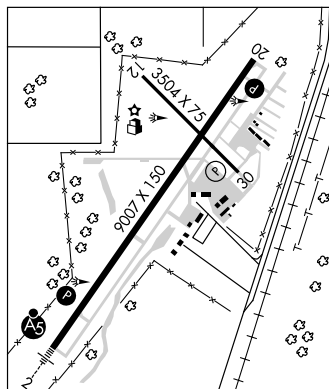
KALISPELL (H) VOR/DME 113.2 FCA Chan 79 N48°12.85'

W114°10.55' 313° 6.6 NM to fld. 2980/18E.

SMITH LAKE NDB (MHW) 515 SAK N48°06.50' W114°27.68'

019° 14.7 NM to fld.

ILS 111.5 I-GPI Rwy 02.



KALISPELL CITY (S27) 1 S UTC-7(-6DT) N48°10.71' W114°18.22'

GREAT FALLS

2932 B S4 **FUEL** 100LL, JET A NOTAM FILE GTF

L-13C

RWY 13-31: H3600X60 (ASPH) S-4 LIRL (NSTD)

RWY 13: Tree.

RWY 31: Thld dspcd 155'. Towers.

AIRPORT REMARKS: Attended daltg hours. Parachute Jumping. Ultralights on and in vicinity of arpt. Glider activity on and in vicinity of arpt. Twr 400' AGL 3 miles E unlighted. Rwy 31 lgt thld relocated 155' for night ops, 3445' of Rwy 13-31 usable at ngt. Rwy 13-31 NSTD LIRL. Rwy 13 thld lgtg located at end of rwy. ACTIVATE LIRL Rwy 13-31—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

LAKESIDE RCO 122.5 (GREAT FALLS RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE FCA.

(H) **VOR/DME** 113.2 FCA Chan 79 N48°12.85' W114°10.55' 229° 5.6 NM to fld. 2980/18E.

KONNA N47°05.66' W114°23.81'. NOTAM FILE MSO.

NDB (HW) 521 INE 113° 16.5 NM to Missoula Intl.

GREAT FALLS

L-13B

LAKESIDE N48°00.68' W114°21.87'

RCO 122.5 (GREAT FALLS RADIO)

GREAT FALLS

L-13B

LAUREL MUNI (6S8) 2 N UTC-7(-6DT) N45°42.19' W108°45.67'

BILLINGS

3517 B S4 FUEL 100, MOGAS NOTAM FILE GTF

H-1E, L-13D

RWY 04-22: H5200X75 (ASPH) S-12.5 MIRL 0.6% up SW

IAP

RWY 04: PAPI(P2L)—GA 3.0° TCH 31'.

RWY 22: PAPI(P2L)—GA 3.0° TCH 41'.

RWY 14-32: H2209X50 (ASPH) S-8 2.5% up NW

RWY 14: Hiil. RWY 32: Thld displd 514'. Trees.

RWY 09-27: 1100X60 (TURF) 2.3% up W

RWY 09: Fence.

RWY 27: Fence.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z±, Sat-Sun

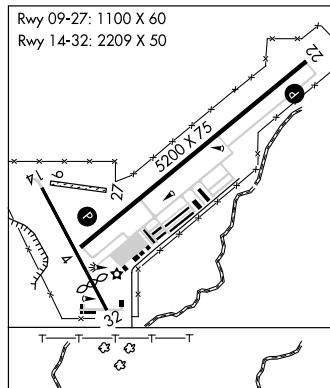
intermittently. Parachute Jumping. Ultralights on and in vicinity of arpt. Numerous deer and antelope on and in vicinity of rwy. PAEW intermittently in vicinity of all rws, twys and ramps. Intermittent snow removal be alert during winter months. Rwy 09 not maintained during winter. Rwy 09-27 surface rough. PAEW north of Rwy 04-22. Rwy 09-27 marker cones full rwy length. Rwy 32 displd thld marked not lgtd. ACTIVATE MIRL Rwy 04-22 and PAPI Rws 04 and 22—CTAF.

WEATHER DATA SOURCES: AWOS-3 123.05 (617) 262-3825. OTS indef.**COMMUNICATIONS:** CTAF/AUNICOM 123.05

Ⓡ BILLINGS APP/DEP CON 119.2 120.5

RADIO AIDS TO NAVIGATION: NOTAM FILE BIL.

BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51' W108°37.48' 208° 8.5 NM to fld. 3808/14E.

**LAVINA** (80S) 2 NW UTC-7(-6DT) N46°18.43' W108°57.34'

BILLINGS

3490 NOTAM FILE GTF

RWY 07-25: 3460X100 (TURF)

RWY 07: Fence.

RWY 25: Fence.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 07-25 very muddy when wet; rough with gopher holes. Rwy 07-25 marked with cones full rwy length.

COMMUNICATIONS: CTAF 122.9**LEWISTOWN MUNI** (LWT) 2 SW UTC-7(-6DT) N47°02.96' W109°28.00'

GREAT FALLS

4170 B S4 FUEL 100, JET A Class III, ARFF Index A NOTAM FILE LWT

H-1D, L-13D

RWY 07-25: H6100X100 (ASPH) S-40, D-55, ST-82, DT-95 MIRL 0.3% up W

IAP

RWY 07: REIL. PAPI(P2L)—GA 3.0° TCH 51'.

RWY 25: REIL. VASI(V4L)—GA 3.0° TCH 50'.

RWY 02-20: H5600X100 (ASPH) S-12.5, D-80, ST-101, DT-120

MIRL 0.7% up SW

RWY 20: Building.

RWY 12-30: H4102X60 (ASPH) S-12.5 MIRL 0.8% up SE

RWY 12: Railroad.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z±. Rwy 02-20 day use only and not plowed during snow. Rwy 02-20 asph spalling. Rwy 02-20 MIRL OTS indef. ACTIVATE MIRL Rwy 02-20, Rwy 07-25, and Rwy 12-30 PAPI Rwy 07, VASI Rwy 25 and REIL Rwy 07 and Rwy 25—CTAF.

WEATHER DATA SOURCES: ASOS 118.375 (406) 538-2653.**COMMUNICATIONS:** CTAF/UNICOM 123.0

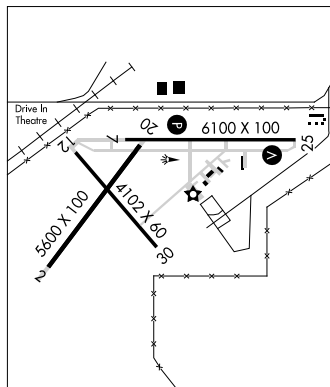
RCO 122.35 (GREAT FALLS RADIO)

AIRSPACE: CLASS E svc continuous.**RADIO AIDS TO NAVIGATION:** NOTAM FILE LWT.

(H) VORW/DME 112.0 LWT Chan 57 N47°03.18'

W109°36.37' 077° 5.7 NM to fld. 4133/15E. VOR/DME

unusable 125°-179° byd 30 NM abv 14,000', 215°-239° byd 30 NM abv 14,000'.



LIBBY (S59) 7 S UTC-7(-6DT) N48°17.03' W115°29.41'

2601 B S4 FUEL 100LL, JET A NOTAM FILE GTF

RWY 15-33: H5000X75 (ASPH-PFC) S-24 MIRL 0.4% up SE

RWY 15: PAPI(P2L)—GA 3.0° TCH 28'. Trees.

RWY 33: PAPI (P2L)—GA 3.75° TCH 36'. Trees.

AIRPORT REMARKS: Attended continuously. ACTIVATE MIRL Rwy 15-33 and PAPI Rwy 15-33-122.8 (or CTAF).

WEATHER DATA SOURCES: AWOS-A 118.575 (406) 293-4631. Plus visibility.

COMMUNICATIONS: CTAF/UNICOM 122.8

SEATTLE CENTER APP/DEP CON 123.95

RADIO AIDS TO NAVIGATION: NOTAM FILE MLP.

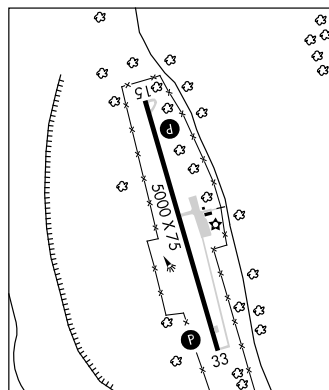
MULLAN PASS (H) VORW/DME 117.8 MLP Chan 125 N47°27.42' W115°38.76' 347° 50.0 NM to fld. 6100/20E. HIWAS.

NDB (MHW) 414 LYI N48°18.27' W115°29.72' 154° 1.3 NM to fld. NOTAM FILE GTF. VFR only.

GREAT FALLS

H-1C, L-13B

IAP



LIBERTY CO (See CHESTER)

LINCOLN (S69) 2 E UTC-7(-6DT) N46°57.28' W112°39.01'

4603 B NOTAM FILE GTF

RWY 04-22: H4239X75 (ASPH-PFC) S-12.5 MIRL

RWY 04: PAPI(P2L)—GA 4.0° TCH 32'. Trees. RWY 22: Road.

AIRPORT REMARKS: Unattended. Heavy helicopter use during summer. Intermittent snow removal. ACTIVATE MIRL Rwy 04-22, PAPI Rwy 04-CTAF.

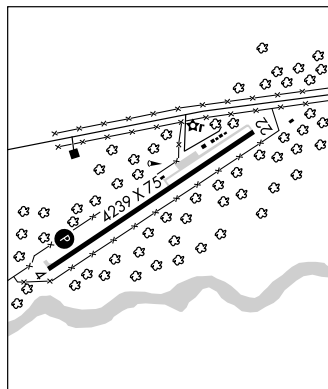
COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GTF.

GREAT FALLS (H) VORTACW 115.1 GTF Chan 98 N47°27.00' W111°24.73' 224° 58.7 NM to fld. 3672/16E.

GREAT FALLS

L-13C



LINDEY'S LANDING WEST SPB (See SEELEY LAKE)

LIVINGSTON N45°42.15' W110°26.55' NOTAM FILE LVM.

(H) VORW/DME 116.1 LVM Chan 108 at Mission Fld. 4650/15E.

RCO 122.2 (GREAT FALLS RADIO)

GREAT FALLS

H-1D, L-13C

LIVINGSTON**MISSION FLD** (LVM) 5 E UTC-7(-6DT) N45°41.96' W110°26.90'**GREAT FALLS**

H-1D, L-13C

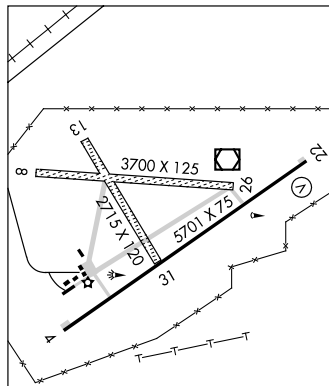
IAP

4660 B S2 **FUEL** 100, JET A NOTAM FILE LVM**RWY 04-22:** H5701X75 (ASPH) S-40, D-70, DT-110 MIRL**RWY 04:** Fence. **RWY 22:** REIL. VASI(V2L)—GA 4.0° TCH 44'.**RWY 08-26:** 3700X125 (TURF)**RWY 08:** Fence.**RWY 13-31:** 2715X120 (TURF)**AIRPORT REMARKS:** Attended 1500-0100Z†. Parachute Jumping.

Wildlife on and in/ov rwy. Ultralight activity on and in vicinity of arpt. Rwy 08 and Rwy 26 thlds and first 200' marked with white cones. Rwy 13 and Rwy 31 thlds and first 200' marked with white cones. Rwy 04-22 MIRL ops dusk-0600Z†, after 0600Z† ACTIVATE MIRL Rwy 04-22—123.0.

WEATHER DATA SOURCES: ASOS 135.275 (406) 222-2338.**COMMUNICATIONS:** CTAF/UNICOM 123.0**LIVINGSTON RCO** 122.2 (GREAT FALLS RADIO)**AIRSPACE:** CLASS E svc 1500-0100Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE LVM.

LIVINGSTON (H) VORW/DME 116.1 LVM Chan 108 N45°42.15' W110°26.55' at fld. 4650/15E

**L M CLAYTON** (See WOLF POINT)**MALMSTROM AFB** (GFA)(KGFA) AF 3 E UTC-7(-6DT) N47°30.28' W111°11.24'**GREAT FALLS**

3472 NOTAM FILE GFA

Not insp.

H1: H100X100 (ASPH)**H2:** H100X100 (CONC)**MILITARY SERVICE:** LGT Perimeter, ldg and apch lgt avbl. Ldg direction and apch lgt oriented 026° **FUEL** J8**TRAN ALERT** No svc avbl without prior coordination with Helicopter Maintenance DSN 632-6356.**MILITARY REMARKS:** Ctc 40th Helicopter Flight for opr hr. See FLIP AP/1 Supplementary Arpt Information. **RSTD**

Rotary/Wing acft on Official Business Only, clsd to all Fixed/Wing acft. PPR from 40th Helicopter Flight DSN 632-3250. Heliport limited to two helipads and slide area btn "R" and "Q". Other areas of old afld littered with obstructions and acft not authorized for ldg or dep. Orange barriers mark boundaries of heliport. **CAUTION** 57' twr located .5 NM northeast.

COMMUNICATIONS: CTAF 139.225**GREAT FALLS APP/DEP CON** 124.15 128.6 259.1 VFR Advisory.

COMD POST 311.0 321.0 **PMSV METRO** 239.8 Opr Mon-Fri 1100-2330Z†, weekends and holidays, limited svc 1300-1600Z†. Other times ctc Davis-Monthan AFB, 25th OWS at DSN 228-7553/7644. ASOS not manually augmented and data is only available via PMSV during normal duty hours. **BLADE OPS** 271.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GTF**MALMSTROM (L) TACAN** GFA (115.8) Chan 105 N47°30.25' W111°10.92' at fld. 3501/17E. No NOTAM MP:

Wed 1430-1630Z† (3000/3+1). Unmonitored Mon-Thu 2330-1100Z†, Fri 2330-1300Z†, weekend and holidays 1500-1300Z†. **SHUTDOWN.**

TACAN unusable:

075°-100° byd 34 NM

270°-300° byd 25 NM blo 7500'

MALTA (M75) 1 NW UTC-7(-6DT) N48°22.02' W107°55.16'**BILLINGS**2254 B S4 **FUEL** 100LL, JET A NOTAM FILE GTF

L-13D

RWY 08-26: H4500X75 (ASPH) S-12.5 MIRL

IAP

RWY 08: PAPI(P2L)—GA 3.0° TCH 25'. **RWY 26:** PAPI(P2L)—GA 3.0° TCH 25'.

AIRPORT REMARKS: Attended continuously. MIRL Rwy 08-26 and PAPI Rwy 08 and Rwy 26 opr dusk-0700Z† after 0700Z† ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 122.8 (617) 262-3825. OTS indef.**COMMUNICATIONS:** CTAF/AUNICOM 122.8**SALT LAKE CENTER APP/DEP CON** 126.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE GGW.**GLASGOW (H) VORW/DME** 113.9 GGW Chan 86 N48°12.92' W106°37.53' 266° 52.6 NM to fld. 2280/14E.**NDB (MHW)** 272 MLK N48°22.13' W107°55.04' at fld. VFR only. NOTAM FILE GTF.

MISSOULA INTL (MSO) 4 NW UTC-7(-6DT) N46°54.98' W114°05.43'

GREAT FALLS

3206 B S4 FUEL 100LL, JET A1 + OX 1, 2, 3, 4 Class I, ARFF Index B NOTAM FILE MSO H-1C, L-13C

RWY 11-29: H9501X150 (ASPH-GRVD) S-145, D-170, ST-175, DT-255 HIRL

IAP, AD

RWY 11: MALSR. PAPI(P4L)—GA 3.0° TCH 55'.

RWY 29: REIL. PAPI(P4L)—GA 3.0° TCH 50'.

RWY 07-25: H4612X75 (ASPH) S-30, D-50 MIRL

RUNWAY DECLARED DISTANCE INFORMATION

RWY 07: TORA-4612 TODA-4612 ASDA-4612 LDA-4612

RWY 11: TORA-9501 TODA-9501 ASDA-9501 LDA-9501

RWY 25: TORA-4612 TODA-4612 ASDA-4612 LDA-4612

RWY 29: TORA-9501 TODA-9501 ASDA-9501 LDA-9501

AIRPORT REMARKS: Attended continuously. Parachute Jumping.

Migratory and small bird activity on and in the vicinity of arpt during months of April-May and Oct-Dec. Hang glider ops 5.5 NM east of AER 29. Contact arpt manager to req approval prior to ultralight ops. Rwy 07-25 surface variations with patches. Rwy 11-29 180 degree turns for acft over 12,500 pounds gross weight prohibited on all movement areas. Avoid locked turns at all times. Twy G between Rwy 07 end to Rwy 11-29 restricted to acft under 12,500 lbs. Avoid locked turns at all times. East ramp twy clsd from terminal ramp to 450' east. When twr clsd ACTIVATE HIRL Rwy 11-29, MALSR Rwy 11—CTAF. PPR for unsked acft ops with more than 30 passenger seats ctc arpt ops manager 406-728-4381. Snow removal ops in progress in winter months. Landing fee for all commercial acft and all acft over 12,500 lbs.

WEATHER DATA SOURCES: ASOS 121.9 (406) 728-3743.

COMMUNICATIONS: CTAF 118.4 ATIS 126.65 UNICOM 122.95

Ⓡ SPOKANE APP/DEP CON 124.9 (1400-0620Z‡)

Ⓡ SALT LAKE CENTER APP/DEP CON 133.4 (0620-1400Z‡)

TOWER 118.4 (1300-0500Z‡) GND CON 121.9

MILLER PEAK RCO 122.45 (GREAT FALLS RADIO)

AIRSPACE: CLASS D svc 1300-0500Z‡ other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE MSO.

(L) VORW/DME 112.8 MSO Chan 75 N46°54.48' W114°05.02' at fld. 3202/17E.

VOR/DME unusable:

043°-063° byd 30 NM

063°-082° byd 30 NM blo 14,000'.

082°-150° byd 20 NM blo 11,000'

116°-150° byd 35 NM

168°-223° byd 25 NM

223°-243° byd 20 NM blo 12,000'

VOR unusable:

082°-116° byd 27 NM blo 13,000'

082°-116° byd 36 NM blo 14,000'

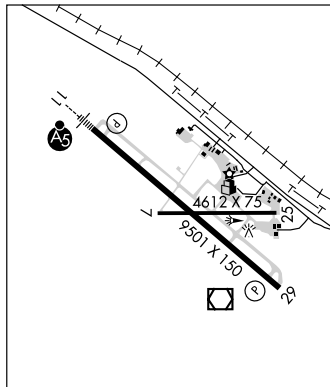
DME unusable:

082°-116° byd 27 NM blo 14,000'

082°-116° byd 39 NM

KONNA NDB (HW) 521 INE N47°05.66' W114°23.81' 113° 16.5 NM to fld.

ILS 109.3 I-MSO Rwy 11. Class IT. LOC unusable byd 30° left of course, byd 30° right of course.



MOUNTAIN LAKES FLD (See HELENA)

OPHEIM (S00) 0 W UTC-7(-6DT) N48°52.00' W106°25.04'

BILLINGS

3264 B NOTAM FILE GTF

RWY 16-34: 2675X150 (TURF) LIRL

RWY 16: Fence. **RWY 34:** Road.

RWY 04-22: 1555X100 (TURF)

RWY 22: Road.

RWY 10-28: 1200X100 (TURF)

RWY 28: Road.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 04-22, Rwy 10-28, Rwy 16-34 marked with red/white panels full length. Rotating bcn out of svc indefinitely.

COMMUNICATIONS: CTAF 122.9

PHILIPSBURG

RIDDICK FLD (U05) 1 SE UTC-7(-6DT) N46°19.16' W113°18.30'

GREAT FALLS

L-13C

5212 B NOTAM FILE GTF

RWY 16-34: H3600X60 (ASPH) S-7 MIRL

RWY 16: Road, Rgt tfc. **RWY 34:** Hiil.

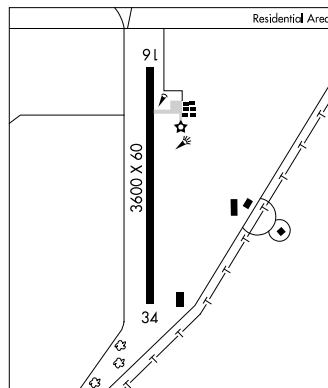
AIRPORT REMARKS: Unattended. Rwy 16-34 pavement is spalling, major crack propagation throughout. Multiple edge fractures. ACTIVATE MIRL Rwy 16-34—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE SMN.

SALMON (H) VOR/DME 113.5 LKT Chan 82 N45°01.28'

W114°05.06' 005° 84.5 NM to fld. 9258/18E.



PLAINS (S34) 1 NW UTC-7(-6DT) N47°28.41' W114°54.43'

GREAT FALLS

L-13B

2467 B NOTAM FILE GTF

RWY 13-31: H4650X75 (ASPH) S-12.5, D-18 MIRL

RWY 13: Road. **RWY 31:** PAPI(P2L)—GA 3.0° TCH 20'.

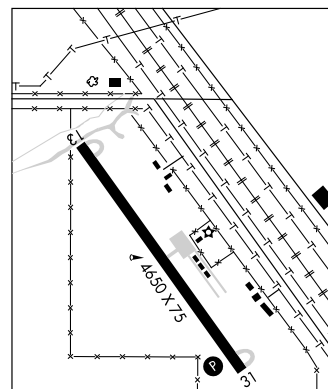
AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 13-31 and PAPI Rwy 31—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE BOI.

MULLAN PASS (H) VOR/DME 117.8 MLP Chan 125 N47°27.42'

W115°38.76' 068° 30.1 NM to fld. 6100/20E.



PLENTYWOOD N48°47.40' W104°31.63'. NOTAM FILE GTF.

BILLINGS

NDB (MHW) 251 PWD at Sher-Wood. VFR only.

L-13E

PLENTYWOOD**SHER-WOOD**

(PWD) 1 NE UTC-7(-6DT) N48°47.32' W104°31.39'

2250 B FUEL 100LL NOTAM FILE GTF

RWY 12-30: H3900X75 (ASPH-PFC) S-12.5

MIRL 0.4% up NW

RWY 12: PAPI (P2L)—GA 3.0° TCH 44'. Road.

RWY 30: PAPI (P2L)—GA 3.0° TCH 44'.

RWY 08-26: 2950X60 (TURF)

RWY 16-34: 1600X83 (TURF)

AIRPORT REMARKS: Unattended. 24 hr self service credit card fuel facility. Ultralight on and in vicinity of arpt. PAPI Rwy 12 OTS indef.

ACTIVATE MIRL Rwy 12-30—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

SALT LAKE CENTER APP/DEP CON 126.85

RADIO AIDS TO NAVIGATION: NOTAM FILE ISN.

WILLISTON (L) VORTACW 116.3 ISN Chan 110 N48°15.21'

W103°45.04' 304° 44.5 NM to fld. 2372/12E.

HIWAS.

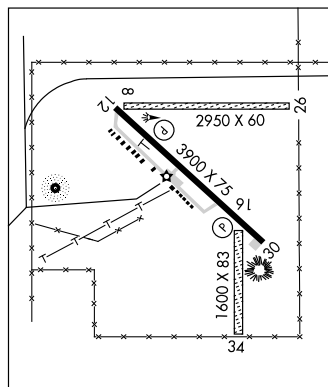
PLENTYWOOD NDB (MHW) 251 PWD N48°47.40' W104°31.63'

at fld. NOTAM FILE GTF. VFR only.

BILLINGS

L-13E

IAP

**POLSON**

(8S1) 1 W UTC-7(-6DT) N47°41.73' W114°11.12'

2941 B S4 FUEL 100LL, JET A NOTAM FILE GTF

RWY 18-36: H4195X75 (ASPH) S-17 MIRL

RWY 18: PAPI(P4L)—GA 3.0° TCH 28'. Highway.

RWY 36: PAPI(P2L)—GA 4.0° TCH 31'. Hill.

AIRPORT REMARKS: Attended 1500-0000Z+. 24 hr self service fuel avbl. Tower 600' AGL 3 miles S unlighted. When ldg on Rwy 36 be alert to seaplane ldgs on adjacent river. ACTIVATE MIRL Rwy 18-36, PAPI Rwy 18 and Rwy 36—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8

SALT LAKE CENTER APP/DEP CON 133.4

RADIO AIDS TO NAVIGATION: NOTAM FILE MLP.

MULLAN PASS (H) VORW/DME 117.8 MLP Chan 125 N47°27.42'

W115°38.76' 056° 61.0 NM to fld. 6100/20E. HIWAS.

• • • • •

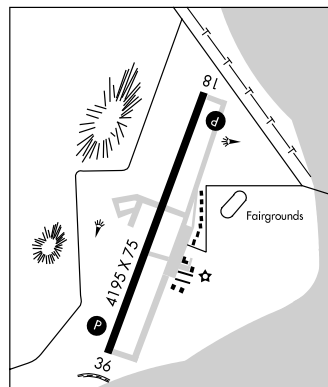
WATERWAY 03W-21W: 4000X500 (WATER)

SEAPLANE REMARKS: Seaplane landing area also used by boats.

GREAT FALLS

L-13C

IAP



POPLAR (42S) 0 NE UTC-7(-6DT) N48°06.96' W105°10.93'

2005 B S2 FUEL 100LL OX 1, 3 NOTAM FILE GTF

RWY 09-27: H3030X60 (ASPH-PFC) S-4 MIRL

RWY 27: VASI(V2L)-GA 3.0° TCH 21'. Pole.

AIRPORT REMARKS: Attended 1500-0100Z+. Rwy 09-27 is rough with debris. Rotating bcn OTS indef. ACTIVATE MIRL Rwy 09-27 and VASI Rwy 27-CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

SALT LAKE CENTER APP/DEP CON 126.85

RADIO AIDS TO NAVIGATION: NOTAM FILE ISN.

WILLISTON (L) VORTACW 116.3 ISN Chan 110 N48°15.21'

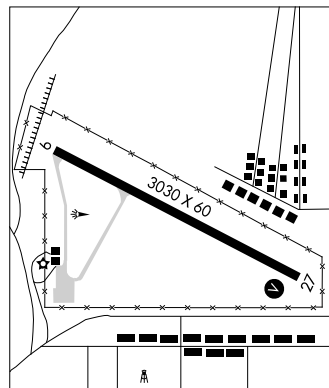
W103°45.04' 250° 58.1 NM to fld. 2372/12E.

HIWAS.

BILLINGS

L-13E

IAP



PORT OF DEL BONITA

WHETSTONE INTL (H28) 0 W UTC-7(-6DT) N49°00.00' W112°47.55'

GREAT FALLS

4336 AOE NOTAM FILE GTF

RWY 07-25: 4440X65 (TURF)

RWY 07: P-line.

RWY 25: Fence.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 07-25 gopher holes on surface. Rwy 07 p-line marked with red balls. Rwy 07-25 cone markers every 200' both sides of rwy and red cones mark thlds.

COMMUNICATIONS: CTAF/UNICOM 122.8

RAVALLI CO (See HAMILTON)

RED LODGE (RED) 1 NW UTC-7(-6DT) N45°11.25' W109°16.04'

GREAT FALLS

5763 B S2 FUEL 100LL, JET A NOTAM FILE GTF

L-13D

RWY 16-34: H4000X75 (ASPH) S-4, D-6 MIRL

RWY 16: VASI(V2L)-GA 3.0° TCH 27'. Road.

RWY 34: Road.

AIRPORT REMARKS: Unattended. For fuel call 406-328-7408. Wildlife on and invof rwy. ACTIVATE MIRL Rwy 16-34 and VASI Rwy 16-CTAF.

COMMUNICATIONS: CTAF 122.9

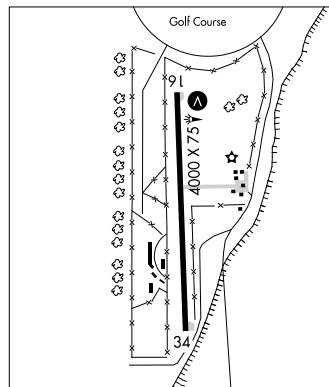
RADIO AIDS TO NAVIGATION: NOTAM FILE BIL.

BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51'

W108°37.48' 202° 46.1 NM to fld. 3808/14E.

NDB (HW) 203 RED N45°14.40' W109°15.86' 165° 3.2

NM to fld. NOTAM FILE GTF. VFR only.



RICHEY (7U8) 1 SW UTC-7(-6DT) N47°37.60' W105°04.58'
 2493 B NOTAM FILE GTF
RWY 14-32: 2690X75 (TURF-DIRT) LIRL
RWY 32: Hiil.
AIRPORT REMARKS: Unattended. Rwy 14-32 center 20' of rwy soft graded dirt, perimeter is turf. No snow removal.
 ACTIVATE LIRL Rwy 14-32—CTAF.
COMMUNICATIONS: CTAF 122.9

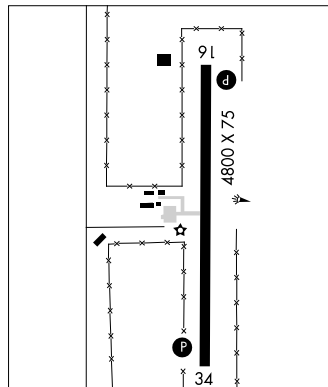
BILLINGS

RIDDICK FLD (See PHILIPSBURG)

ROCK CREEK (See CLINTON)

RONAN (7S0) 3 N UTC-7(-6DT) N47°34.03' W114°06.07'
 3086 B S2 **FUEL** 100LL, JET A NOTAM FILE GTF
RWY 16-34: H4800X75 (ASPH) MIRL
RWY 16: PAPI(P2L)—GA 3.0° TCH 21. Road.
RWY 34: PAPI(P2L)—GA 3.0° TCH 22'.
AIRPORT REMARKS: Unattended. Fuel avbl 24 hours via self serve credit card svc. Large seagulls on and in vicinity of arpt. MIRL Rwy 16-34 and PAPI Rwy 34 opr 2300-0400Z†; after 0400Z† ACTIVATE MIRL Rwy 16-34 and PAPI Rwy 16 and 34—CTAF.
WEATHER DATA SOURCES: AWOS-3 122.8 (617) 262-3825. OTS indef.
COMMUNICATIONS: CTAF/UNICOM 122.8
SALT LAKE CENTER APP/DEP CON 133.4
RADIO AIDS TO NAVIGATION: NOTAM FILE FCA
KALISPELL (H) VORW/DME 113.2 FCA Chan 79 N48°12.85' W114°10.55' 158° 39 NM to fld. 2980/18E.

GREAT FALLS
 L-13C
 IAP

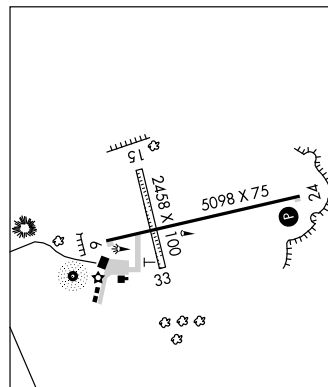


ROSS INTL (See SWEETGRASS)

ROTORCRAFT HELIPORT (See Hamilton)

ROUNDUP (RPX) 2 N UTC-7(-6DT) N46°28.50' W108°33.60'
 3491 B **FUEL** 100LL, JET A NOTAM FILE GTF
RWY 06-24: H5098X75 (ASPH) S-12.5 MIRL
RWY 06: Tree. **RWY 24:** PAPI(P2L)—GA 3.0° TCH 45'.
RWY 15-33: 2458X100 (TURF-DIRT)
RWY 15: Tree. **RWY 33:** Trees.
AIRPORT REMARKS: Attended Mon-Sat 1500-0000Z†. Service avbl Sun phone 406-323-1011. Credit card self service fuel avbl 24 hours. Parachute Jumping. Wildlife on and invof arpt. Ultralights on and invof arpt. Radio controlled airplane ops on arpt. Rgt tfc Rwy 24 from 0500Z† to 1400Z†. Major airframe and major power plant repairs winter only. Rwy 15-33 marked with white cones full length, red cones mark thld. ACTIVATE PAPI Rwy 24—CTAF.
COMMUNICATIONS: CTAF/AUNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE BIL.
BILLINGS (H) VORTACW 114.5 BIL Chan 92 N45°48.51' W108°37.48' 351° 40.1 NM to fld. 3808/14E.
NDB (MHW) 362 RPX N46°28.83' W108°34.04' at fld.
 NOTAM FILE GTF. VFR only.

BILLINGS
 H-1E, L-13D



RYEGATE (8U0) 1S UTC-7(-6DT) N46°17.43' W109°14.86' **GREAT FALLS**
 3689 B NOTAM FILE GTF
RWY 07-25: 3440X100 (TURF)
RWY 07: P-line. **RWY 25:** Hiil.
AIRPORT REMARKS: Unattended. Rwy 07-25 surface condition rough. No snow removal. Rwy 07-25 marked by white cones full length.
COMMUNICATIONS: CTAF 122.9

SAIGE N45°51.13' W108°41.67'. NOTAM FILE BIL. **BILLINGS**
NDB (LOM) 251 BI 099° 6.9 NM to Billings Logan Intl.

ST IGNATIUS (52S) 1 NE UTC-7(-6DT) N47°19.50' W114°04.84' **GREAT FALLS**
 3006 B S2 **FUEL** 100LL NOTAM FILE GTF
RWY 08-26: H2610X60 (ASPH) LIRL
RWY 08: Road. **RWY 26:** Building.
AIRPORT REMARKS: Attended continuously. Migratory flocks of birds invof rwy. Snow removal. Rwy 08 90' relocated thld for ngt ops only. Rwy 26 243' relocated thld for ngt ops only. 2277' avbl for ngt ops. Rwy 08 90' unlighted, Rwy 26 243' unlighted, 2277' lgtd at ngt. Telephone on fld 406-745-4008. ACTIVATE LIRL Rwy 08-26-122.9
COMMUNICATIONS: CTAF 122.9

ST LABRE MISSION (See ASHLAND)

SAND SPRINGS STRIP (8U1) 1 NW UTC-7(-6DT) N47°06.25' W107°30.21' **BILLINGS**
 3180 TPA-3900(720) NOTAM FILE GTF
RWY 10-28: 2400X60 (TURF)
RWY 10: Road.
AIRPORT REMARKS: Attended dalgt hours. Animals on and invof rwy. Rwy 10-28 may be soft when wet. No landing on twy connected to Rwy 28.
COMMUNICATIONS: CTAF/UNICOM 122.8

SCHAFER (USFS) (8U2) 1S SE UTC-7(-6DT) N48°05.25' W113°15.05' **GREAT FALLS**
 4855 NOTAM FILE GTF
RWY 07-25: 3200X60 (TURF)
RWY 07: Trees. **RWY 25:** Trees.
AIRPORT REMARKS: Unattended. Summer phone 406-752-7345. Watch for horses or big game animals on rwy. First 400' Rwy 25 very rough. Rwy 07-25 E 1800' marked with cones, W 1400' unmarked. Tkf and land Rwy 25 conditions permitting.
COMMUNICATIONS: CTAF 122.9

SCOBEY**SCOBEY** (9S2) 1 NW UTC-7(-6DT) N48°48.46' W105°26.37'**BILLINGS**

2432 B S4 FUEL 100LL, JET A NOTAM FILE GTF

L-13E

RWY 12-30: H4015X75 (ASPH) S-11 MIRL 1.2% up SE

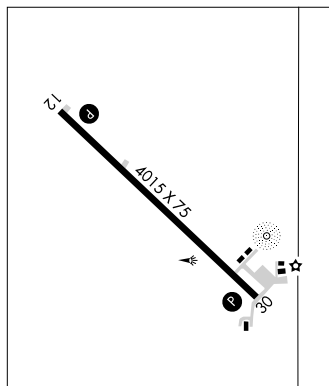
IAP

RWY 12: PAPI(P2L)—GA 3.0° TCH 25'.**RWY 30:** PAPI(P2L)—GA 3.0° TCH 25'.**AIRPORT REMARKS:** Attended Mon-Fri 1500-0000Z, Sat 1500-1900Z. For fuel after hours call 406-487-5544. Deer on and in vicinity of arpt. MIRL Rwy 12-30; PAPI Rwy 12 and Rwy 30 opr dusk-0600Z; after 0600Z ACTIVATE—CTAF.**COMMUNICATIONS:** CTAF/AUNICOM 122.8**SALT LAKE CENTER APP/DEP CON** 126.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE GGW.**GLASGOW (H) VOR/DME** 113.9 GGW Chan 86 N48°12.92'

W106°37.53' 039° 59.2 NM to fld. 2280/14E.

NDB (MHW) 283 SCO N48°48.52' W105°26.17' at fld.

NOTAM FILE GTF. VFR only.

**SCOBEY BORDER STATION (EAST POPLAR INTL)** (8U3) 13 N UTC-7(-6DT)**BILLINGS**

N49°00.00' W105°24.03'

2501 LRA NOTAM FILE GTF

RWY 07-25: 3330X75 (TURF)**RWY 07:** Pole.**AIRPORT REMARKS:** Unattended. May have live stock on and in vicinity of arpt. No snow removal. Rwy 07-25 soft when wet. Rwy 07-25 marked with cones full length. Rwy 07-25 surface rolling with gopher holes.**COMMUNICATIONS:** CTAF 122.9**SEELEY LAKE****LINDEY's LANDING WEST SPB** (M35) 1 NW UTC-8(-7DT) N47°10.46' W113°28.80'**GREAT FALLS**

3993 FUEL MOGAS NOTAM FILE GTF

WATERWAY 12-30: 14000X1000 (WATER)**SEAPLANE REMARKS:** Attended continuously.**COMMUNICATIONS:** CTAF 122.9**SEELEY LAKE** (23S) 2 E UTC-7(-6DT) N47°10.75' W113°26.72'**GREAT FALLS**

4235 B NOTAM FILE GTF

RWY 16-34: 4575X75 (TURF)**RWY 16:** Trees. **RWY 34:** Trees.**AIRPORT REMARKS:** Unattended. Birds and wildlife on and in vicinity of arpt. Ultralights on and in vicinity of arpt. Tkfs to north not recommended due to rising terrain. Rwy 16-34 very soft and muddy when wet. Rwy 16-34 cones with reflectors along full length of rwy except during winter months. Snow removal intermittent, call arpt manager for current conditions 406-444-2506. ACTIVATE rotating bcu—CTAF.**COMMUNICATIONS:** CTAF 122.9

SHELBY (SBX) 2 N UTC-7(-6DT) N48°32.44' W111°52.27'
 3443 B S4 FUEL 100, JET A NOTAM FILE GTF
RWY 05-23: H5004X75 (ASPH-PFC) S-12.5 MIRL 0.6% up NE
RWY 05: PAPI(P2L)—GA 3.0° TCH 29'.
RWY 23: PAPI(P2L)—GA 3.0° TCH 32'. Road.
RWY 11-29: H3701X60 (ASPH-PFC) S-12.5 MIRL 0.3% up SE
RWY 11: PAPI(P2L)—GA 3.0° TCH 31'.
RWY 29: PAPI(P2L)—GA 3.0° TCH 38'. Light pole.

AIRPORT REMARKS: Attended 1500-0100Z†. For fuel after hours call 406-450-2461 or 406-450-2463. Self svc credit card for 100LL and Jet A. Fuel truck avbl for Jet A. Deer on and invof arpt. Twys marked with reflectors. ACTIVATE MIRL Rwy 05-23; Rwy 11-29; PAPI Rwy 05, Rwy 23, Rwy 11 and Rwy 29—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

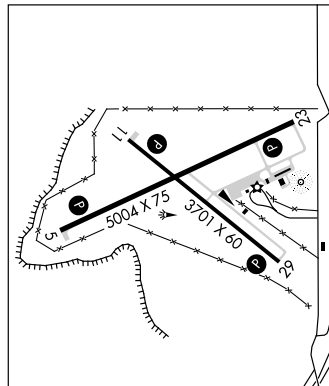
CUT BANK RCO 122.2 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 133.4

RADIO AIDS TO NAVIGATION: NOTAM FILE CTB.

CUT BANK (L) VORTACW 114.4 CTB Chan 91 N48°33.90'
 W112°20.60' 077° 18.9 NM to fld. 3780/17E.

NDB (MHW) 347 SBX N48°32.46' W111°51.75' at fld.
 NOTAM FILE GTF.



GREAT FALLS
H-10, L-13C
IAP

SHER-WOOD (See PLENTYWOOD)

SIDNEY-RICHLAND MUNI (SDY) 1 W UTC-7(-6DT) N47°42.41' W104°11.55'
 1985 B S4 FUEL 100LL, JET A OX 3 Class III, ARFF Index A NOTAM FILE SDY
RWY 01-19: H5705X100 (ASPH-GRVD) S-40, D-55, DT-85 MIRL

RWY 01: REIL. PAPI(P2L)—GA 3.0° TCH 33'.
RWY 19: REIL. PAPI(P2L)—GA 3.0° TCH 41'. Tree. Rgt tfc.
RWY 10-28: H4023X100 (ASPH-GRVD) S-12, D-18
 MIRL 0.4% up NW

RWY 10: REIL. PAPI(P2L)—GA 3.0 TCH 40'. Pole. Rgt tfc.
RWY 28: REIL. PAPI(P2L)—GA 3.0° TCH 26'. Tree.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 01: TORA-5705 TODA-5705 ASDA-5705 LDA-5705
RWY 10: TORA-4022 TODA-4022 ASDA-4022 LDA-4022
RWY 19: TORA-5705 TODA-5705 ASDA-5705 LDA-5705

AIRPORT REMARKS: Attended 1200-0500Z†. On call 24 hrs a day. For arpt conditions, ctc arpt management 406-433-2415. ACTIVATE MIRL Rwy 01-19 and Rwy 10-28, REIL Rwy 01, Rwy 19, Rwy 10 and Rwy 28; PAPI Rwy 01, Rwy 19, Rwy 10, and Rwy 28—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.275 (406) 482-7323.

COMMUNICATIONS: CTAF/UNICOM 122.8

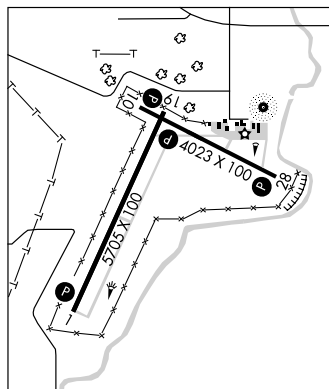
RCD 123.65 (GREAT FALLS RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE ISN.

WILLISTON (L) VORTACW 116.3 ISN Chan 110 N48°15.21'
 W103°45.04' 197° 37.3 NM to fld. 2372/12E.

HIWAS.

NDB (HWS) 359 SDY N47°42.69' W104°10.91' at fld. NOTAM FILE SDY.



BILLINGS
H-1E, 2G, L-13E
IAP

SMITH LAKE N48°06.50' W114°27.68'. NOTAM FILE FCA.
NDB (MHW) 515 SAK 019° 14.7 NM to Glacier Park Intl.

GREAT FALLS
L-13B

SPOTTED BEAR (USFS) (8U4) 3 NW UTC-7(-6DT) N47°57.50' W113°33.56'

GREAT FALLS

3670 NOTAM FILE GTF

RWY 14-32: 3800X78 (TURF)

RWY 14: Trees. **RWY 32:** Trees.

AIRPORT REMARKS: Unattended. Rwy 14-32 north quarter of strip has a slight dog-leg, dog leg begins 1100' from north end. Rwy 32 NSTD markings first 2400' marked with cones spaced 200' apart including dogleg.

COMMUNICATIONS: CTAF 122.9

STANFORD (S64) 1 S UTC-7(-6DT) N47°08.81' W110°13.80'

4327 B FUEL 100LL, MOGAS NOTAM FILE GTF

RWY 11-29: H4200X75 (ASPH) S-12 MIRL

RWY 11: Fence. RWY 29: PAPI(P2L)-GA 3.0° TCH 30'. Road.

RWY 07-25: 1760X100 (TURF-GRVL)

RWY 07: Fence. RWY 25: P-line.

AIRPORT REMARKS: Attended irregularly. Mogas available from station attendant across from hangars. First 200' of Rwy 25 gravel with tall grass/weed growing through. First 500' Rwy 07 very rough; multiple gopher holes. ACTIVATE MIRL Rwy 11-29 and PAPI Rwy 29-CTAF.

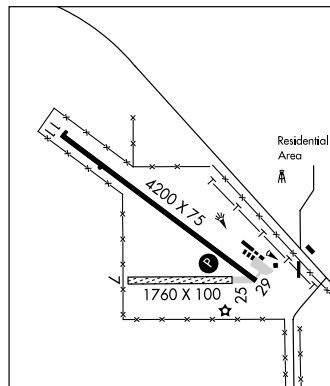
COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LWT.

LEWISTOWN (H) VORW/DME 112.0 LWT Chan 57 N47°03.18'
W109°36.37' 268° 26.2 NM to fld. 4133/15E.

GREAT FALLS

L-13D



STARR-BROWNING AIRSTRIP (See BROWNING)

STEVENSVILLE (32S) 2 NE UTC-7(-6DT) N46°31.51' W114°03.17'

3610 B S4 FUEL 100LL OX 4 NOTAM FILE GTF

RWY 12-30: H3800X60 (ASPH-PFC) S-12.5 MIRL 2.0% up SE

RWY 12: PAPI(P2L)-GA 3.0° TCH 37'. RWY 30: Trees.

AIRPORT REMARKS: Unattended. Parachute Jumping. Fuel sold 24 hr by credit card self svc. Snow removal intermittent. ACTIVATE MIRL Rwy 12-30 and PAPI Rwy 12-CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

SPOKANE APP/DEP CON 124.9 (1400-0620Z‡)

SALT LAKE CENTER APP/DEP CON 133.4 (0620-1400Z‡)

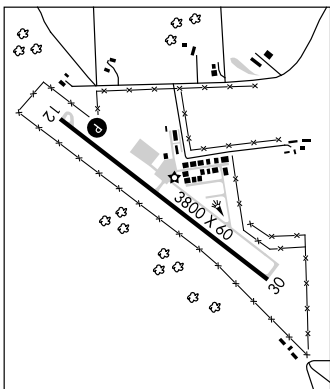
RADIO AIDS TO NAVIGATION: NOTAM FILE MSO.

MISSOULA (L) VORW/DME 112.8 MSO Chan 75 N46°54.48'
W114°05.02' 160° 23 NM to fld. 3202/17E.

GREAT FALLS

L-13C

IAP



SUNBURST (8U5) 1 NW UTC-7(-6DT) N48°53.20' W111°55.30'

3401 NOTAM FILE GTF

RWY 05-23: 2700X140 (TURF)

RWY 05: Fence. RWY 23: Trees. Rgt tfc.

RWY 18-36: 1470X100 (TURF)

RWY 18: Fence.

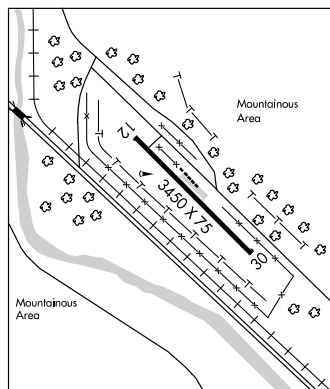
AIRPORT REMARKS: Unattended. Rwy 05-23 and Rwy 18-36 rough with large gopher holes. Rwy 05-23 has red and black panel markers full length of rwy and thlds. Rwy 18-36 has red and black panel markers full length of rwy and thlds. Rwy 05 NSTD markings.

COMMUNICATIONS: CTAF 122.9

GREAT FALLS

SUPERIOR**MINERAL CO** (9S4) 2 SE UTC-7(-6DT) N47°10.10' W114°51.22'**GREAT FALLS**

2787 NOTAM FILE GTF

L-13B**RWY 12-30:** H3450X75 (ASPH-PFC) S-12**RWY 12:** Tree. **RWY 30:** Trees.**AIRPORT REMARKS:** Unattended. Mountainous terrain surrounding arpt.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MSO.**MISSOULA (L) VORW/DME** 112.8 MSO Chan 75 N46°54.48' W114°05.02' 280° 35.3 NM to fld. 3202/17E.**SWEETGRASS****ROSS INTL** (7S8) 1 W UTC-7(-6DT) N48°59.92' W111°58.65'**GREAT FALLS**

3552 LRA NOTAM FILE GTF

RWY 07-25: 2900X80 (TURF)**RWY 07:** Road. **RWY 25:** Fence.**AIRPORT REMARKS:** Unattended. No snow removal. Rwy 07-25 surface muddy when wet. Gopher holes on rwy surface.

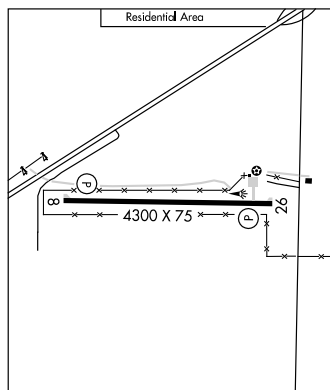
Eastern end and twy have heavy ruts. Rwy 07 red cones mark each thld and white cones spaced 200' mark rwy edges full length. +18' buildings, +4' fences and +30' trees both sides of twy and rwy in transition surface beginning 405' W of Rwy 25 E to Rwy 25 thld. Also Rwy 25 +22' fence 62' right and 515' from Rwy 25 end penetrates approach surface. 3' metal stakes obstrns in tiedown area.

COMMUNICATIONS: CTAF/UNICOM 122.8**TARGY** N44°34.52' W111°11.85' NOTAM FILE WYS.**GREAT FALLS****NDB (HW/LOM)** 415 LO 011° 7.6 NM to Yellowstone. Ops Jun-Sep annually.**L-13C****TERRY** (8U6) 1 SE UTC-7(-6DT) N46°46.63' W105°18.79'**BILLINGS**

2283 B NOTAM FILE GTF

L-13E**RWY 08-26:** H4300X75 (ASPH) S-12.5 MIRL**RWY 08:** PAPI(P2L)—GA 4.0° TCH 36'. Fence.**RWY 26:** PAPI(P2L)—GA 3.0° TCH 25'. Road.**AIRPORT REMARKS:** Attended continuously. Snow removal intermittent.

Rwy 08-26 has patchy rough areas. + 35' p-line 1075' from thld on centerline extended, 25:1 apch ratio. P-line marked with globes. ACTIVATE MIRL Rwy 08-26 and rotating bcn—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLS.**MILES CITY (H) VORW/DME** 112.1 MLS Chan 58 N46°22.93' W105°57.21' 033° 35.6 NM to fld. 2640/15E.

THOMPSON FALLS (THM) 3 SE UTC-7(-6DT) N47°34.41' W115°16.84'

GREAT FALLS

2467 B FUEL 100LL NOTAM FILE GTF

L-13B

RWY 07-25: H4200X75 (ASPH) S-12.5 MIRL

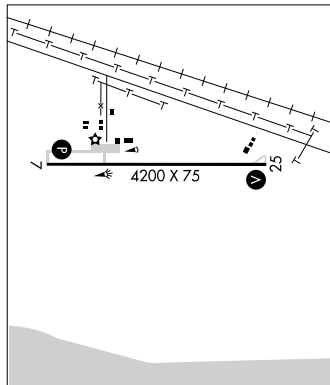
RWY 07: PAPI(P2L)—GA 4.0° TCH 40'. Fence.

RWY 25: VASI(V2L)—GA 4.0° TCH 37'. P-line. Call arpt manager at 406-827-0078 if arpt not attended.

AIRPORT REMARKS: Attended Mon-Fri 1600-0000Z. Call arpt manager at 406-827-0078 if arpt not attended. 24 hr credit card svc avbl for fuel. Waterfowl invof arpt. Snow removal intermittent. Call 406-827-0078 for rwy conditions. Marked ground wires 7 miles E Mainland to Big Island. Rwy 25 VASI rotated 4° to the North of rwy centerline and baffled 6° to South of rwy centerline. VASI Rwy 25 out of svc indefinitely. Rwy 07 PAPI baffled horizontally byd 5° north and south of centerline and unusable byd 2.6 NM. MIRL, VASI, PAPI on dusk to 0500Z via time clock, other times—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLP.

MULLAN PASS (H) VORW/DME 117.8 MLP Chan 125 N47°27.42' W115°38.76' 045° 16.4 NM to fld. 6100/20E. HIWAS.

**THREE FORKS** (9S5) 1 SE UTC-7(-6DT) N45°52.69' W111°34.17'

GREAT FALLS

4089 B S4 FUEL 100LL NOTAM FILE GTF

H-1D, L-13C

RWY 02-20: H5100X60 (ASPH) S-12 MIRL

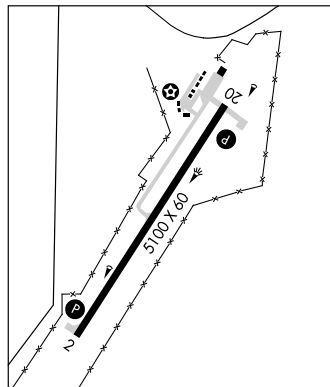
RWY 02: PAPI(P2L)—GA 3.0° TCH 24'.

RWY 20: PAPI(P2L)—GA 3.0° TCH 25'. Trees.

AIRPORT REMARKS: Attended continuously. Fuel 24 hr credit card svc avbl. Ultralight activity on and in vicinity of arpt. Parachute Jumping. Occasional aerobicic maneuvers invof arpt. Deer on and in vicinity of arpt. ACTIVATE MIRL Rwy 02-20 and PAPI Rwy 02, Rwy 20 and rotating bcn—CTAF.

WEATHER DATA SOURCES: AWOS-3 122.8 (617) 262-3825. OTS indef.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE BZN.

BOZEMAN (H) VORW/DME 112.4 BZN Chan 71 N45°47.03' W111°09.33' 270° 18.3 NM to fld. 4430/18E.

**TIBER DAM** (B70) 1 SW UTC-7(-6DT) N48°18.83' W111°06.55'

GREAT FALLS

3023 NOTAM FILE GTF

RWY 12-30: 2550X90 (TURF)

RWY 30: Road.

AIRPORT REMARKS: Unattended. No snow removal. Rwy 12-30 marked with white cones full length spaced every 200'. Rwy 12-30 may be rough.

COMMUNICATIONS: CTAF 122.9**TILLITT FLD** (See FORSYTH)**TIMBER** N46°20.88' W104°15.38'. NOTAM FILE BHK.

BILLINGS

NDB (HW) 344 BKU at Baker Muni

L-13E

TOWER HILL N45°48.85' W104°26.83'.

BILLINGS

RCO 122.3 (GREAT FALLS RADIO)

L-13E

TOWNSEND**CANYON FERRY** (8U9) 7 NW UTC-7(-6DT) N46°25.13' W111°34.63'

GREAT FALLS

3840 NOTAM FILE GTF

RWY 16-34: 3200X75 (TRTD)**RWY 34:** Thld dspcd 597'. Road.**AIRPORT REMARKS:** Unattended. Rwy 16-34 surface rough due to rocks. Rwy 16-34 marked with white cones spaced 200' apart. Rwy 34 dspcd thld marked with red cones.**COMMUNICATIONS:** CTAF/UNICOM 122.8**TOWNSEND** (8U8) 2 E UTC-7(-6DT) N46°19.87' W111°28.96'

GREAT FALLS

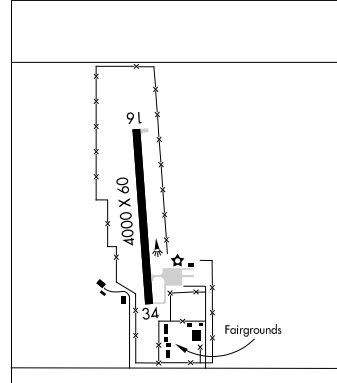
L-13C

3893 B S4 **FUEL** 100LL NOTAM FILE GTF**RWY 16-34:** H4000X60 (ASPH) S-12.5 MIRL**RWY 34:** Tree.**AIRPORT REMARKS:** Unattended. Twy marked with reflectors. ACTIVATE

MIRL Rwy 16-34—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE BZN.**BOZEMAN (H) VOR/DME** 112.4 BZN Chan 71 N45°47.03'

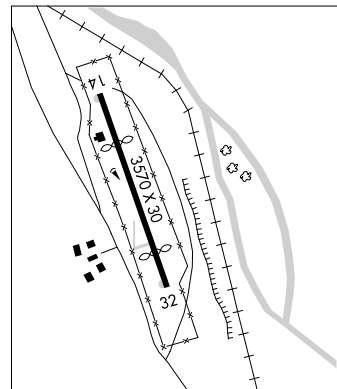
W111°09.33' 320° 35.6 NM to fld. 4430/18E.

**TROY** (57S) 1 NW UTC-7(-6DT) N48°28.81' W115°54.21'

GREAT FALLS

L-13B

2017 NOTAM FILE GTF

RWY 14-32: H3570X30 (ASPH)**RWY 14:** Thld dspcd 825'. Trees.**RWY 32:** Thld dspcd 780'. Trees. Rgt tfc.**AIRPORT REMARKS:** Unattended. Pedestrians using walking track invof movement area. Rwy 14-32 rwy sfc rough. Loose gravel and debris on rwy. Weeds growing through cracks. No snow removal.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE MLP.**MULLEN PASS (H) VOR/DME** 117.8 MLP Chan 125 N47°27.42'W115°38.76' 331° 62.3 NM to fld. 6100/20E. **HIWAS.****TRULY** N47°21.95' W111°22.37'. NOTAM FILE GTF.

GREAT FALLS

L-13C

NDB (HW) 371 ITU 345° 7.0 NM to Great Falls Intl.

TURNER (9U0) 1 NE UTC-7(-6DT) N48°51.25' W108°24.50'

BILLINGS

3049 B NOTAM FILE GTF

L-130

RWY 07-25: H3612X60 (ASPH) S-12.5 MIRL

RWY 07: Road.

RWY 25: PAPI(P2L)—GA 3.0° TCH 38'. Antenna.

RWY 10-28: 2190X90 (TURF)

RWY 10: Fence.

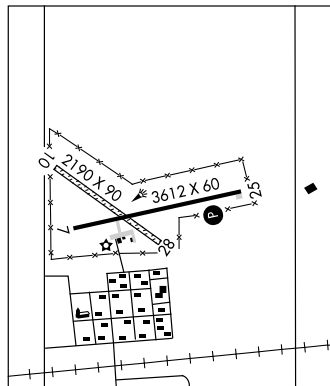
RWY 28: Fence.

AIRPORT REMARKS: Attended dawn-dusk Mon-Fri. Deer invof arpt. Rwy 10-28 marked with white cones full length thlds marked with red cones. MIRL Rwy 07-25 and PAPI Rwy 25 opr dusk-0500Z†, after 0500Z† ACTIVATE MIRL Rwy 07-25 and PAPI Rwy 25—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE HVR.

HAVRE (L) VORW/DME 111.8 HVR Chan 55 N48°32.43' W109°46.20' 054° 57.3 NM to fld. 2583/16E.



TWIN BRIDGES (7S1) 2 SE UTC-7(-6DT) N45°32.02' W112°18.16'

GREAT FALLS

4777 B S4 FUEL 100LL, JET A NOTAM FILE GTF

L-13C

RWY 17-35: H4299X60 (ASPH) S-12.5 MIRL

RWY 17: PAPI(P2L)—GA 3.0° TCH 29'.

RWY 35: PAPI(P2L)—GA 3.0° TCH 35'. Tower.

RWY 07-25: 3400X110 (TURF-GRVL)

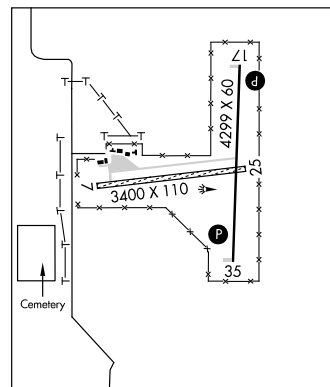
RWY 07: Road.

AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z†. Ultralights on and in vicinity of arpt. Deer on and in vicinity of arpt. 195' tall tower 1.4 NM of Rwy 17 threshold. MIRL Rwy 17-35, PAPI Rwy 17 and Rwy 35 opr dusk-0300Z†; after 0300Z† ACTIVATE MIRL Rwy 17-35, PAPI Rwy 17 and Rwy 35—CTAF. Wx station on arpt, ACTIVATE—CTAF or call 617-262-3825.

COMMUNICATIONS: CTAF/AUNICOM 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE DLN.

DILLON (H) VORW/DME 113.0 DLN Chan 77 N45°14.91' W112°32.83' 013° 20.0 NM to fld. 5260/18E.



VALIER (7S7) 1 S UTC-7(-6DT) N48°18.00' W112°15.05'

GREAT FALLS

3820 S4 FUEL 100LL, JET A NOTAM FILE GTF

RWY 07-25: 3075X150 (TURF)

RWY 07: Tree.

RWY 25: Rgt tfc. Fence.

RWY 04-22: 2280X300 (TURF)

RWY 04: Trees.

RWY 22: Road. Rgt tfc.

RWY 10-28: 2140X130 (TURF)

RWY 10: Fence.

RWY 28: Trees. Rgt tfc.

AIRPORT REMARKS: Attended continuously. For fuel call 406-279-3342. CAUTION: waterfowl on and invof arpt. Rwy 07-25, Rwy 10-28 and Rwy 04-22 marked with white cones full length. Rwy 07 NSTD markings.

COMMUNICATIONS: CTAF 122.9

WEST FORK LODGE (See CONNER)

WEST YELLOWSTONE**YELLOWSTONE** (WYS) 1 N UTC-7(-6DT) N44°41.30' W111°07.06'**GREAT FALLS**

6649 B FUEL 100LL, JET A1+ Class II, ARFF Index A NOTAM FILE WYS

H-10, L-13C

RWY 01-19: H8400X150 (ASPH-GRVD) S-90, D-150, ST-175, DT-280 HIRL

IAP

RWY 01: MALSR. PAPI(P4L)—GA 3.0° TCH 49'.

RWY 19: REIL. VASI(V4L)—GA 3.0° TCH 53'.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 01: TORA-8399 TODA-8399 ASDA-8399 LDA-8399

RWY 19: TORA-8399 TODA-8399 ASDA-8399 LDA-8399

AIRPORT REMARKS: Attended Jun-Sep 1330-0600Z. For fuel during off season hrs, call 406-646-7359. Arpt CLOSED from December 1 through May 31 except with PPR. Call 406-444-2506. Parachute Jumping. Heavy snowmobile use on and adjacent rwy winter months. PPR for air carrier ops with more than 30 passenger seats, call arpt manager 406-646-7631/9321. No snow removal. Arpt avbl and staffed Jun 1-Sep 30, ctc fixed base operator 406-646-7359 or owner 406-444-2506 for information other times. MALSR, REIL, VASI and HIRL out of svc Oct 1-May 31. ACTIVATE HIRL Rwy 01-19 and MALSR Rwy 01—CTAF not available from Oct 1 thru May 31 annually. Ldg fee for acft over 11,000 lbs.

COMMUNICATIONS: CTAF/UNICOM 123.0

RCO 119.4 (GREAT FALLS RADIO)

SALT LAKE CENTER APP/DEP CON 132.4

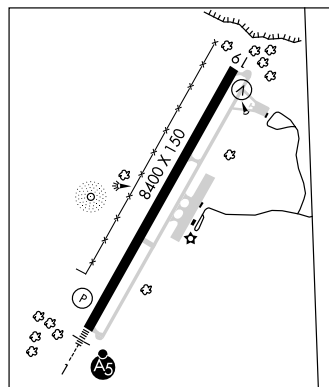
AIRSPACE: CLASS E svc continuous.**RADIO AIDS TO NAVIGATION:** NOTAM FILE BOI.

DUBOIS (H) VORTACW 116.9 DBS Chan 116 N44°05.33' W112°12.56' 037° 59.2 NM to fld. 4915/15E.

NDB (HW) 338 ESY N44°41.38' W111°07.27' at fld. Opr June-Sept. NOTAM FILE WYS. VFR only. Out of svc Oct 1 thru May 31.

TARGY NDB (HW/LOM) 415 LO N44°34.52' W111°11.85' 011° 7.6 NM to fld. NOTAM FILE WYS. Ops Jun-Sep annually.

ILS 110.7 I-LOW Rwy 01. Class IA. LOM TARGY NDB. ILS opr Jun-Sep. Localizer unusable inside threshold. LOC and glideslope unmonitored.

**WHEATLAND CO AT HARLOWTON** (See HARLOWTON)**WHETSTONE INTL** (See PORT OF DEL BONITA)**WHITEFISH** (58S) 1 E UTC-7(-6DT) N48°24.48' W114°17.97'**GREAT FALLS**

3066 TPA-4066(1000) NOTAM FILE GTF

RWY 11-29: 2560X75 (TURF)

RWY 11: Thld dsplcd 278'. Trees. RWY 29: Trees.

AIRPORT REMARKS: Unattended. Numerous gopher holes on arpt. No snow removal. Arpt CLOSED from Nov through May. Rwy 11-29 marked with white cones. Rwy 11 dsplcd thld marked with red cones. Rwy 11-29 trees, railroad and p-lines in transitional surface full rwy length on N side.

COMMUNICATIONS: CTAF 122.9**WHITEHALL** N45°51.71' W112°10.18'. NOTAM FILE BTM.**GREAT FALLS**

(H) VORW/DME 113.7 HIA Chan 84 274° 14.8 NM to Bert Mooney. 5530/18E.

H-10, L-13C

VOR and DME unusable:

105°-160° beyond 25 NM below 16,000'

275°-330° beyond 25 NM below 15,500'

210°-230° beyond 25 NM below 14,500'

355°-050° beyond 25 NM below 15,500'

WHITE SULPHUR SPRINGS (7S6) 3 S UTC-7(-6DT) N46°30.25' W110°54.80'**GREAT FALLS**

5061 B FUEL 100LL NOTAM FILE GTF

H-10, L-13C

RWY 01-19: H6100X60 (ASPH) S-12.5 MIRL

RWY 01: PAPI(P2L)—GA 3.0° TCH 38'. Fence.

RWY 19: PAPI(P2L)—GA 3.0° TCH 37'. Thld dsplcd 213'.

P-line.

RWY 13-31: 3200X90 (TURF)

RWY 13: Road. RWY 31: P-line.

AIRPORT REMARKS: Unattended. Antelope and birds frequently on and in vicinity of arpt. Irrigation twrs AER 13. Snow removal irregular. MIRL Rwy 01-19 OTS indef. ACTIVATE MIRL Rwy 01-19 and PAPI Rwy 01 and Rwy 19—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE BZN.

BOZEMAN (H) VORW/DME 112.4 BZN Chan 71 N45°47.03' W111°09.33' 355° 44.4 NM to fld. 4430/18E

WILSALL (9U1) 4 NW UTC-7(-6DT) N46°02.98' W110°41.13' **GREAT FALLS**
 5134 NOTAM FILE GTF
RWY 01-19: 3100X78 (TURF)
RWY 01: Fence. **RWY 19:** Fence.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 01-19 soft when wet, gopher holes on rwy. Rwy 01-19 marked with cones full length. Model airplane usage invof arpt.
COMMUNICATIONS: CTAF 122.9

WINIFRED (9S7) 1 S UTC-7(-6DT) N47°33.10' W109°22.66' **GREAT FALLS**
 3311 NOTAM FILE GTF
RWY 08-26: 2405X150 (TURF) S-4
RWY 08: Fence. **RWY 26:** Road.
AIRPORT REMARKS: Unattended. Emerg etc 406-462-5426. Recommend land on Rwy 26 and txf on Rwy 08 conditions permitting.
COMMUNICATIONS: CTAF 122.9

WISDOM (7S4) 2 S UTC-7(-6DT) N45°35.50' W113°27.55' **GREAT FALLS**
 6133 NOTAM FILE GTF
RWY 01-19: 3445X60 (TURF)
RWY 01: Road. **RWY 19:** Thld dsplcd 520'. Road.
AIRPORT REMARKS: Unattended. Arpt CLOSED winter months. Rwy 01-19 wedge full length has 8 to 14 inch berm. Rwy 01-19 multiple gopher and badger holes, especially in southern end of rwy. Rwy 01 first 400' marked with white cones. Rwy 19 first 600' marked with white cones. Rwy 19 dsplcd thld marked with 4 red cones.
COMMUNICATIONS: CTAF 122.9

WISE RIVER (Ø2T) 2 SW UTC-7(-6DT) N45°46.15' W112°58.90' **GREAT FALLS**
 5830 NOTAM FILE GTF
RWY 02-20: 4050X60 (DIRT-AFSC)
RWY 02: Road. Rgt txc.
AIRPORT REMARKS: Unattended. Arpt not plowed winter months. Rwy 02-20 2 cones on each rwy end mark thlds.
COMMUNICATIONS: CTAF 122.9

WOKAL FLD/GLASGOW INTL (See GLASGOW)

WOLF POINT N48°06.27' W105°36.12' NOTAM FILE OLF. **BILLINGS**
 NDB (HW) 404 OLF 108° 1.2 NM to L M Clayton. L-13E
 RCO 122.45 (GREAT FALLS RADIO)

WOLF POINT**L M CLAYTON** (OLF) 3 E UTC-7(-6DT) N48°05.67' W105°34.50'1986 B S4 **FUEL** 100LL, JET A TPA-2786(800) Class III, ARFF Index A

NOTAM FILE OLF

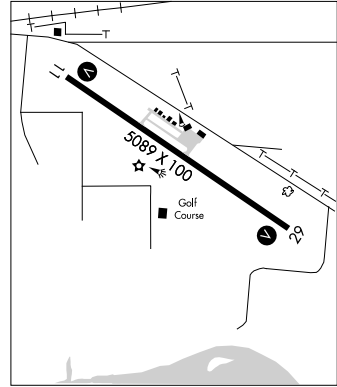
RWY 11-29: H5089X100 (ASPH-PFC) S-38, D-50 MIRL**RWY 11:** REIL. VASI(V2L)-GA 3.0° TCH 25'. Road.**RWY 29:** REIL. VASI(V2L)-GA 3.0° TCH 25'.

AIRPORT REMARKS: Attended Mon-Fri 1300-0230Z+. For svc after normal business hours call Arpt manager 406-650-8303 or 406-650-8305. 24 hr self service credit card fuel facility. Afld sfc conditions not monitored 0230-1300Z+. ACTIVATE MIRL Rwy 11-29, REIL Rwy 11 and Rwy 29, VASI Rwy 11 and Rwy 29-CTAF.

WEATHER DATA SOURCES: ASOS 118.325 (406) 653-3865.**COMMUNICATIONS:** CTAF/UNICOM 122.8**WOLF POINT RCO** 122.45 (GREAT FALLS RADIO)**(R) SALT LAKE CENTER APP/DEP CON** 126.85**RADIO AIDS TO NAVIGATION:** NOTAM FILE GGW.

GLASGOW (H) VORW/DME 113.9 GGW Chan 86 N48°12.92' W106°37.53' 085° 42.8 NM to fld. 2280/14E.

WOLF POINT NDB (HW) 404 OLF N48°06.27' W105°36.12' 108° 1.2 NM to fld. NOTAM FILE OLF.

BILLINGS**H-1E, 2G, L-13E****IAP****YELLOWSTONE** (See WEST YELLOWSTONE)

**INTENTIONALLY
LEFT
BLANK**



**VFR ADVISORY AREA
Canadian Airspace
VICTORIA–VANCOUVER
(Effective: Until Further Notice)**

Effective 0901 UTC August 6, 1994, a VFR Advisory Area was permanently established between the two Canadian control zones, from above 1,200' MSL up to 2,500' MSL. Vancouver and Victoria Towers provide radar traffic information to all participating aircraft within the VFR Advisory Area.

PROCEDURES

Victoria/Vancouver

*All aircraft operating between Victoria and Vancouver within the VFR Advisory Area should follow the routes shown on the graphic.

***Northbound:** Change from Victoria Tower, 119.1, to Vancouver Tower, 124.0, when instructed by ATC.

***Southbound:** Change from Vancouver Tower, 124.0, to Victoria Tower, 119.1, when instructed by ATC.

*Set transponder codes as requested.

TRANSITING TRAFFIC

*Call Vancouver Tower on 124.0 when north of the Active Pass/Samuel Island Line.

*Call Victoria Tower on 119.1 when south of the Active Pass/Samuel Island Line.

*Set Transponder codes as requested.

Routes and recommended altitudes will not be useable by all aircraft at all times because of weather and regulations pertaining to flight over water. Higher altitudes may be requested. If unable to maintain VFR, advise ATC.

CONTROLLED FIRING
Fort Harrison Controlled Firing Area
Helena, Montana

Controlled firing occurs in the vicinity of the Helena, Montana VORTAC (HLN) 24 hours daily, 5'800 MSL and BELOW. The area defined by the following radial/DME coordinates HLN258008, HLN258005, HLN250008, HLN250005.

CONTROLLED FIRING
Limestone Hills Controlled Firing Area
Helena, Montana

Controlled firing occurs in the vicinity of the Helena, Montana VORTAC (HLN) 24 hours daily, FL180 and BELOW. The area defined by the following radial/DME coordinates HLN125026, HLN127028, HLN140025, HLN125028.

**SPECIAL NORTH ATLANTIC, CARIBBEAN AND
PACIFIC AREA COMMUNICATIONS**

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

MOUNT ST. HELENS NATIONAL VOLCANIC MONUMENT, WASHINGTON

The U.S. Geological Survey (USGS) and the U.S. Forest Service (USFS) conduct low level flights to and from monitor station within the monument and within the crater itself. Due to this activity, the volatility of the volcano and a high volume of sightseeing flights in the area, the following procedures are recommended in the interest of flying safety.

1. VFR aircraft are encouraged to transmit an initial position report on 122.75 MHz in the blind when flying at altitudes of less than 10,000 feet MSL within 10 nautical miles of the Mount St. Helens volcano crater.
2. VFR flight below 3000 feet AGL – strongly not recommended.
3. VFR flight above 3000 feet AGL – fly a counterclockwise pattern, no closer than 3 miles to the volcano summit.

VFR rules of "see and be seen" and good airmanship practices will prevail. Approval to land can only be obtained through appropriate Federal or State authority. Any significant information will be broadcast on the transcribed weather broadcasts by the Seattle and McMinnville Flight Service Stations and available on the Portland and Seattle ATIS. Marginal radar coverage limits Seattle Center's ability to provide radar flight following to aircraft in orbit of the volcano.

DEVILS TOWER NATIONAL MONUMENT, WYOMING

For reasons of national welfare, pilots are requested to avoid flights within 3 nautical miles of Devils Tower National Monument.

BIRD HAZARD OREGON AND WASHINGTON

Heavy concentration of migratory and wintering flocks of large waterfowl from the Canadian to California borders annually November to May. Caution advised at all airports or while transiting area.

SIMULTANEOUS OPERATIONS
Boeing Field/King County International Airport
Seattle, Washington

All users: Boeing Field Airport Traffic Control Tower is authorized to conduct simultaneous same direction operations to parallel runways, between sunrise and sunset, for Category II aircraft and smaller.

Spokane International Airport
Spokane, Washington

Application of visual separation for simultaneous operations. When weather conditions at Spokane International Airport are 1500' ceiling and 5 miles visibility or greater Spokane International Airport controllers may provide visual separation of aircraft landing and departing simultaneously at Spokane International Airport and Fairchild Airforce Base.

LASER LIGHT DEMONSTRATIONS
Bozeman, Montana

A laser light demonstration will be conducted daily between 0000 and 2359 MDT until June 24, 2010 at Montana State University BZN VORTAC 129 radial at 8 NM LAT 45–39–59N/Long 111–02–44W. The laser beam elevation will be a maximum of 090 and a minimum of 089. The beam may be injurious to eyes when viewed within 12000 feet AGL vertically and 500 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

**SEATTLE-TACOMA INTL
SEATTLE, WASHINGTON****Gatehold Procedures:**

During peak departure periods, gatehold procedures are implemented for all IFR departures. Additional information will be broadcast on ATIS.

Oceanic Departures:

1. Contact Clearance Delivery *only* when you will be ready to taxi within ten minutes. State destination, requested altitude, "ten minutes to taxi."
 2. If ATC delays are more than 15 minutes for your filed altitude/route, alternatives with less delay will be offered.
 3. Failure to depart the gate within ten minutes or reach the runway at the release time specified in the IFR clearance may result in the cancellation of your clearance.
-

MOUNTAIN HOME, IDAHO

All aircraft operating within 20 NM of the Liberator VOR are requested to contact Mountain Home APP CON on 124.8 for traffic advisory due to intensive military training in the Mountain Home area.

MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission.

Army installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations, prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or water administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

The following have been designated "Continuous Power Airports," and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ)	08	Milwaukee, WI (MKE)	01L
Andrews AFB, MD (ADW)	01L	Minneapolis, MN (MSP)	30L
Anchorage, AK (ANC)	07R	Nashville, TN (BNA)	02L
Atlanta, GA (ATL)	09R	New Orleans, LA (MSY)	10
Baltimore, MD (BWI)	10	New York, NY (JFK)	04R
Bismarck, ND (BIS)	31	New York, NY (LGA)	22
Boise, ID (BOI)	10R	Newark, NJ (EWR)	04R
Boston, MA (BOS)	04R	Oklahoma City, OK (OKC)	35R
Charlotte, NC (CLT)	36L	Omaha, NE (OMA)	14R
Chicago, IL (ORD)	14R	Ontario, CA (ONT)	26L
Cincinnati, OH (CVG)	36C	Philadelphia, PA (PHL)	09R
Cleveland, OH (CLE)	06R	Phoenix, AZ (PHX)	08
Dallas/Fort Worth, TX (DFW)	17C	Pittsburgh, PA (PIT)	10L
Denver, CO (DEN)	35R	Reno, NV (RNO)	16R
Des Moines, IA (DSM)	31	Salt Lake City, UT (SLC)	34L
Detroit, MI (DTW)	03R	San Antonio, TX (SAT)	12R
El Paso, TX (ELP)	22	San Diego, CA (SAN)	09
Fairbanks, AK (FAI)	01L	San Francisco, CA (SFO)	28R
Great Falls, MT (GTF)	03	San Juan, PR (SJU)	08
Honolulu, HI (HNL)	08L	Seattle, WA (SEA)	16C
Houston, TX (IAH)	26L	St. Louis, MO (STL)	30R
Indianapolis, IN (IND)	05L	Tampa, FL (TPA)	36L
Jacksonville, FL (JAX)	07	Tulsa, OK (TUL)	36R
Kansas City, MO (MCI)	19R	Washington, DC (DCA)	01
Los Angeles, CA (LAX)	24R	Washington, DC (IAD)	01R
Memphis, TN (MEM)	36L	Wichita, KS (ICT)	01L
Miami, FL (MIA)	08R		

NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

Night Vision Lights Out Operations Yakima Training Center, Washington

Military helicopter activity will be conducted for night vision lights out training at Yakima Training Center, Washington. Position lights will be extinguished or greatly reduced in intensity. The training will be conducted within the confines of the YTC reservation but outside of the restricted airspace. The general description of the night vision goggle (NVG) training area is that airspace bordered by R-6714H on the south, Highline Canal on the west, the southern edge of Interstate 90 on the north, and Ginko State Park Petified Forest on the east.

The boundaries of the NVG area are:

Beginning at lat. 46°55'03"N, long. 120°01'34"W;
to lat. 46°55'40"N, long. 120°01'35"W;
to lat. 46°55'39"N, long. 120°02'52"W;
to lat. 46°56'15"N, long. 120°02'52"W
thence west along the southern edge of Interstate 90;
to lat. 46°57'21"N, long. 120°18'08"W;
thence west/southwest along the Highline Canal;
to lat. 46°55'24"N, long. 120°19'55"W;
to point of beginning.

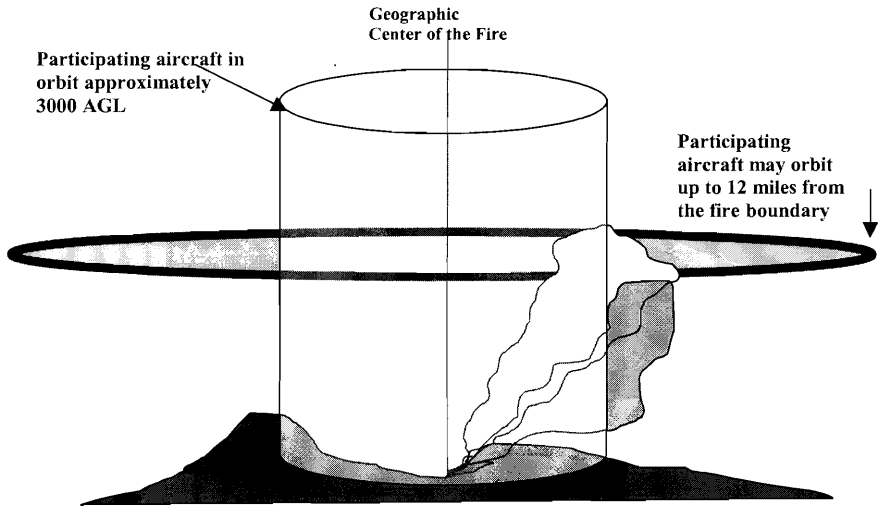
Times of use: Sunset to sunrise, daily.

Request Publication date of May 22, 1997.

Please refer any questions to James Riley, ANM-532.2, at (206) 227-2537.

LIGHTS-OUT OPERATIONS Hays MOA, Montana

Lights-out night vision goggle training operations conducted within the Hays MOA at all altitudes from sunset to sunrise when MOA is active by NOTAM. Contact Salt Lake City ARTCC on 133.4 or 119.75 or Great Falls FSS for schedule and NOTAM information.

FIREFIGHTING TRAFFIC AREAS

Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, and Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93-1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at <http://www.faa.gov>. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e-CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll-free telephone number for accessing e-CVRS is 1-800-875-9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll-free areas may access e-CVRS by calling the toll number of 703-707-0568. The Internet web address for accessing the e-CVRS is <http://www.fly.faa.gov/ecvrs>. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904-4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high-density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904-4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e-CVRS.

FSS TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large hub facilities and smaller remote facilities which are interconnected with the hubs.

Selected remote FSS facilities across the contiguous United States have variable part-time operating hours. Because of the interconnectivity between remote and hub facilities, all FSS services are available continuously using published telephone numbers and radio frequencies.

NORTHWEST U.S.

WASHINGTON: Seattle, Boeing Field/King County International (BFI)—SEA FSS

Telephone Information Briefing Service (TIBS) is a FSS service that provides continuous recordings of meteorological and/or aeronautical information including area and/or route briefings, airspace procedures and special announcements. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings 1-800-WX-BRIEF (1-800-992-7433)

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above) 1-877-4TIBS-WX(1-877-484-2799)

Clearance Delivery Only 1-888-766-8267

Lifeguard Flights Only 1-877-LIF-GRD3 (1-877-543-4733)

Flights within DC SFRA & FRZ * 1-866-225-7410

* District of Columbia Special Flight Rules Area & Flight Restricted Zone

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA
OVC008CB
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB
18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	METAR
KPIT	ICAO location indicator	KPIT
091730Z	Issuance time: ALL times in UTC " <u>Z</u> ", 2-digit date, 4-digit time	091955Z
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times In U.S. METAR : <u>COR</u> rected ob; or <u>AUTO</u> mated ob for automated report with no human intervention; omitted when observer logs on	COR
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or <u>VaRiaBle</u>); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 00000KT for calm; for METAR , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180V260	22015G25KT
5SM	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in TAF <u>Plus</u> 6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	3/4SM
HZ	Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>"I"</u> ; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>Feet</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No</u> change)	R28L/2600FT
FEW020	Significant present, forecast and recent weather: see table (on back) Cloud amount, height and type: <u>SKY</u> <u>Clear</u> 0/8, <u>FEW</u> >0/8-2/8, <u>SCaTtered</u> 3/8-4/8, <u>BroKeN</u> 5/8-7/8, <u>OVerCast</u> 8/8; 3-digit height in hundreds of ft; <u>Towering CU</u> mulus or <u>CumulonimBus</u> in METAR ; in TAF , only <u>CB</u> . <u>Vertical Visibility</u> for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated METAR reports only, <u>CLeaR</u> for "clear below 12,000 feet" <u>Temperature</u> : degrees Celsius; first 2 digits, temperature <u>"I"</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06 <u>Altimeter</u> setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; (<u>Q</u> -hectoPascals, e.g., Q1013)	TSRA OVC010CB 18/16 A2992

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. TAF , non-convective low-level ($\leq 2,000$ ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); "°"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u>	RMK SLP045 T01820159
FM1930	In METAR , <u>ReMark</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/dew-point</u> in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	
TEMPO 2022	<u>FroM</u> and 2-digit hour and 2-digit minute beginning time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
PROB40 0407	TEMPO rary: changes expected for < 1 hour and in total, < half of 2-digit hour beginning and 2-digit hour ending time period	
BECMG 1315	PROB ability and 2-digit percent (30 or 40): probable condition during 2-digit hour beginning and 2-digit hour ending time period	
	BEC oMing: change expected during 2-digit hour beginning and 2-digit hour ending time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

WEATHER PHENOMENA

Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

Obscuration

BR Mist ($\geq 5/8$ SM)	FG Fog ($< 5/8$ SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "()" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥ 10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE

NOAA/PA 96052

National Oceanic and Atmospheric Administration—National Weather Service

Air Traffic Control System Command Center

Main Number 703-904-4400

RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907-271-5464
Central	816-329-2500
Eastern	718-553-4502
Great Lakes	847-294-7202
New England	781-238-7500
Northwest Mountain	425-227-2500
Southern	404-305-5500
Southwest	817-222-5500
Western Pacific	310-725-6500

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817-222-5006	7:30 a.m.-4:00 p.m.	505-856-4300
Anchorage	907-271-5936	7:30 a.m.-4:00 p.m.	907-269-1137
Atlanta	404-305-5180	7:30 a.m.-5:00 p.m.	770-210-7601
Boston	617-238-7001	7:30 a.m.-4:00 p.m.	603-879-6633
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	630-906-8221
Cleveland	847-294-8400	8:00 a.m.-4:00 p.m.	440-774-0310
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-651-4100
Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	817-858-7300
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-5300
Indianapolis	847-294-8400	8:00 a.m.-4:00 p.m.	317-247-2231
Jacksonville	404-305-5180	8:00 a.m.-4:30 p.m.	904-549-1501
Kansas City	816-329-3000	7:30 a.m.-4:00 p.m.	913-254-8500
Los Angeles	661-265-8200	7:30 a.m.-4:00 p.m.	661-265-8200
Memphis	404-305-5180	7:30 a.m.-4:00 p.m.	901-368-8103
Miami	404-305-5180	7:00 a.m.-3:30 p.m.	305-716-1500
Minneapolis	847-294-8400	8:00 a.m.-4:00 p.m.	651-463-5580
New York	718-995-5426	8:00 a.m.-4:40 p.m.	516-468-1001
Oakland	310-725-3300	6:30 a.m.-3:00 p.m.	510-745-3331
Salt Lake City	425-227-1389	7:30 a.m.-4:00 p.m.	801-320-2500
Seattle	425-227-1389	7:30 a.m.-4:00 p.m.	253-351-3500
Washington	718-995-5426	8:00 a.m.-4:30 p.m.	703-771-3401

MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONS)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	847-608-5509
Dallas/Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	972-615-2500
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1500
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-8400
New York	718-995-5426	8:00 a.m.-4:30 p.m.	516-683-2901
Northern CA	310-725-3300	7:00 a.m.-3:30 p.m.	916-366-4001
Southern CA	310-725-3300	7:30 a.m.-4:00 p.m.	858-537-5800

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

KEY AIR TRAFFIC FACILITIES

DAILY NAS REPORTABLE AIRPORTS

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817-222-5006	8:00 a.m.-5:00 p.m.	505-842-4366
Andrews AFB, MD	718-995-5426	8:00 a.m.-4:30 p.m.	301-735-2380
Baltimore/Washington Intl Thurgood Marshall, MD	718-995-5426	8:00 a.m.-4:30 p.m.	410-962-3555
Boston Logan Intl, MA	781-238-7001	7:30 a.m.-4:00 p.m.	617-455-3100
Bradley Intl, CT	617-238-7001	7:30 a.m.-4:00 p.m.	203-627-3428
Burbank/Bob Hope, CA	310-725-3300	7:00 a.m.-5:30 p.m.	818-567-4806
Charlotte Douglas Intl, NC	404-305-5180	8:00 a.m.-4:30 p.m.	704-344-6487
Chicago Midway, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-884-3670
Chicago O'Hare Intl, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-601-7600
Cleveland Hopkins Intl, OH	847-294-8400	8:00 a.m.-4:00 p.m.	216-898-2020
Covington/Cincinnati, OH	708-294-7401	8:00 a.m.-4:30 p.m.	606-767-1006
Dallas/Ft. Worth Intl, TX	817-222-5006	8:30 a.m.-5:00 p.m.	972-615-2531
Dayton Cox Intl, OH	847-294-8400	7:30 a.m.-4:00 p.m.	937-454-7300
Denver Intl, CO	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1600
Detroit Metro, MI	847-294-8400	8:00 a.m.-4:00 p.m.	734-955-5000
Fairbanks Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-474-0050
Fort Lauderdale Intl, FL	404-305-5180	7:00 a.m.-3:30 p.m.	305-356-7932
George Bush Intercontinental/Houston, TX	817-222-5006	7:30 a.m.-4:00 p.m.	713-230-8400
Hartsfield-Jackson Atlanta Intl, GA	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Honolulu Intl, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-840-6100
Houston Hobby, TX	817-222-5006	8:00 a.m.-5:00 p.m.	713-847-1400
Indianapolis Intl, IN	847-294-8400	8:00 a.m.-4:00 p.m.	317-484-6600
Kahului/Maui, HI	310-643-3200	7:30 a.m.-4:00 p.m.	808-877-0725
Kansas City Intl, MO	816-329-3000	7:30 a.m.-4:00 p.m.	816-329-2700
Las Vegas McCarran, NV	310-725-3300	7:30 a.m.-4:00 p.m.	702-262-5978
Los Angeles Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	310-342-4900
Louis Armstrong New Orleans Intl, LA	817-222-5006	7:00 a.m.-4:30 p.m.	504-471-4300
Memphis Intl, TN	404-305-5180	7:30 a.m.-4:00 p.m.	901-322-3350
Miami Intl, FL	404-305-5180	7:00 a.m.-4:00 p.m.	305-869-5400
Minneapolis/St. Paul, MN	847-294-8400	8:00 a.m.-4:00 p.m.	612-713-4000
Nashville Intl, TN	404-305-5180	7:00 a.m.-3:30 p.m.	615-781-5460
New York Kennedy Intl, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-656-0335
New York La Guardia, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-335-5461
Newark Liberty Intl, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	973-645-3103
Norman Y. Mineta San Jose Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	408-982-0750
Ontario Intl, CA	310-643-3200	7:30 a.m.-4:00 p.m.	909-983-7518
Orlando Intl, FL	404-305-5180	7:30 a.m.-5:00 p.m.	407-850-7000
Philadelphia Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	215-492-4100
Phoenix Sky Harbor Intl, AZ	310-643-3200	7:30 a.m.-4:00 p.m.	602-379-4226
Pittsburgh Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	412-269-9237
Portland Intl, OR	425-227-1389	7:30 a.m.-4:00 p.m.	503-493-7500
Raleigh-Durham, NC	404-305-5180	8:00 a.m.-4:30 p.m.	919-840-5544
Ronald Reagan Washington National, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-413-1535
Salt Lake City, UT	425-227-1389	7:30 a.m.-4:00 p.m.	801-325-9600
San Antonio Intl, TX	817-222-5006	8:00 a.m.-4:30 p.m.	210-805-5507
San Diego Lindbergh Intl, CA	310-725-3300	8:00 a.m.-4:30 p.m.	619-299-0677
San Francisco Intl, CA	310-643-3200	7:00 a.m.-3:30 p.m.	650-876-2883
San Juan Intl, PR	404-305-5180	7:30 a.m.-5:00 p.m.	809-253-8663
Seattle-Tacoma Intl, WA	425-227-1389	7:30 a.m.-4:00 p.m.	206-214-4600
St. Louis Lambert, MO	816-329-3000	7:30 a.m.-4:00 p.m.	314-890-1000
Tampa Intl, FL	404-305-5180	7:30 a.m.-4:00 p.m.	813-371-7700
Ted Stevens Anchorage Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-271-2700
Teterboro, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	201-288-1889
Washington Dulles Intl, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-661-6031
West Palm Beach, FL	404-305-5180	8:00 a.m.-4:30 p.m.	407-683-1867
Westchester Co, NY	718-995-5426	8:00 a.m.-4:30 p.m.	914-948-6520

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

®DENVER CENTER – 125.9 **H-1-2-3-4-5-6, L-8-9-10-11-12-13-14-15**
(KZDV)

Casper – 135.6 **118.925**
Cherokee – 132.1
Cheyenne – **134.575 133.175** 132.1 125.9
Laramie – 125.9
Lusk – 135.6
Medicine Bow – **133.175** 132.1 126.5
Rock Springs – 128.5
Sundance – 135.6 **133.675**

®SALT LAKE CITY CENTER **H-1-2-3, L-9-11-12-13-14**
(KZLC)

Ashton – **132.4** 132.4 **128.35** 128.35
Baker – 128.05
Big Piney – **128.35** 128.35
Billings – **127.75** 127.75
Blackfoot – **128.35** 128.35
Bliss – 128.55 118.05
Boise – 118.05
Bozeman – **132.4** 132.4
Burley – 118.05
Butte – **133.4** 133.4 **132.4** 132.4
Cascade – **121.15**
Francis Peak – 127.7
Glasgow – **126.85** 126.85
Great Falls – **133.4** 133.4 **132.425**
Green River – **124.35** 124.35
Jackson – **133.25** 133.25
Judith Mountain – **133.4** 133.4 **126.85** 126.85
Lakeside – 133.4
Lovell – **133.25** 133.25
Malad City – **126.75**
Miles City – **126.85** 126.85
Missoula – 133.4 **119.75** 119.75
Rome – 128.05
Salmon – **132.4** 132.4
Sheridan – **127.75** 127.75
Squaw Butte – 128.05 **121.15**
Thermopolis – **133.25** 133.25 **124.35** 124.35

®SEATTLE CENTER **H-1-3, L-1-2-11-13**
(KZSE)

Antelope Mountain – 124.85
Arcata – 124.85
Badger Mountain – **127.05** 127.05 **134.95** 134.95
Beacon Hill – **127.05** 127.05 **120.3** 120.3
Cottonwood – 123.95 **118.55**
Dallesport – **126.6** 126.6
Fort Lawton – **127.05** 127.05
Hoquiam – **128.3**
Horton – **132.075** 125.8 121.4
Kimberly – **135.45**
Klamath Falls – **134.9** 127.6
Lakeside – 123.95
Lakeview – **135.35** 127.6
Larch Mountain – **128.3** 128.3 **126.6** 126.6
Marlin – 126.1
Medford – **135.15** 124.85 121.4
Mohler – **128.45**
Mullan Pass – **128.45**
Nassel – 124.2
Neah Bay – **125.1** 125.1
Redmond – **121.35 134.9 135.35** 128.15
Rex-Parrett – **121.35**
Scappoose – 124.2 128.15
Spokane – 123.95 119.225
Stampede Pass – **134.95** 134.95
The Dalles – **135.45** 119.65
Wallula – 132.6
Wenatchee – 126.1
Whidbey Island – **134.95** 134.95 128.5 **125.1** 125.1
Yakima – **135.525** 135.525 132.6 **120.3** 120.3 **118.55**

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. "T" indicates transmit only and "R" indicates receive only. RCO's available at NAVAID's are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

BOISE AFSS

ASHTON RCO 123.625
BLISS RCO 122.4
BOISE RCO 122.2 122.6
CASCADE RCO 122.35
CONNERS RCO 122.05
COEUR D'ALENE RCO 122.05
HAILEY RCO 122.4
IDAHO FALLS RCO 122.55
LEWISTON RCO 122.35
MALAD CITY RCO 122.65
MOUNTAIN HOME RCO 122.6
MULLAN PASS RCO 122.15
POCATELLO RCO 122.35
ROME RCO 122.65
SALMON RCO 122.55
SQAW BUTTE RCO 122.45
STANLEY RCO 122.6
TWIN FALLS RCO 122.25

CASPER AFSS

ANTELOPE GAP RCO 122.2
BIG PINEY RCO 122.3
BOYSEN RESERVOIR RCO 122.3
CASPER RCO 122.2 122.4
CHEROKEE RCO 122.4
CHEYENNE RCO 122.3
CODY RCO 122.3
CONVERSE RCO 121.975
CRAZY WOMAN RCO 122.025
DUNIOR RCO 122.6
FORT BRIDGER RCO 122.3
GILLETTE RCO 122.3
JACKSON RCO 122.05
LARAMIE RCO 122.6
MEDICINE BOW RCO 122.5
NEWCASTLE RCO 122.5
RAWLINS RCO 122.2
RIVERTON RCO 122.2
ROCK SPRINGS RCO 122.6
SHERIDAN RCO 122.5
WORLAND RCO 122.4

GREAT FALLS AFSS

BILLINGS 122.55
BOZEMAN RCO 122.5
BUTTE RCO 122.2 122.4
COPPERTOWN RCO 122.65
CUT BANK RCO 122.2
DILLON RCO 122.15
GLASGOW RCO 122.25
GLENDALE RCO 122.55
GREAT FALLS RCO 122.6
HARLOWTON RCO 122.4
HAVRE RCO 123.65
HELENA RCO 122.55
JUDITH MOUNTAIN RCO 122.2
LAKESIDE RCO 122.5
LEWISTOWN RCO 122.35
LIVINGSTON RCO 122.2
MILES CITY RCO 122.2
MILLER PEAK RCO 122.45
SIDNEY RCO 123.65
TOWER HILL RCO 122.3
WOLF POINT RCO 122.45
YELLOWSTONE RCO **119.4**

Mc MINNVILLE AFSS

ASTORIA RCO 122.3
AUGSPURGER RCO 122.3
BEAVER MOUNTAIN RCO **122.4**
BURNS RCO 122.5
CAPE BLANCO RCO 122.4
ENTERPRISE RCO 122.5
EUGENE RCO **122.3**
KIMBERLY RCO 122.6
KLAMATH FALLS RCO 122.6
LA GRANDE RCO 122.5
LAKEVIEW RCO 122.3
MC MINNVILLE RCO 122.45
MEDFORD RCO 122.65
NEWBERG RCO 122.45
NEWPORT RCO 122.5
NORTH BEND RCO 122.4
ONTARIO RCO 122.3
PENDLETON RCO 122.2
PORTLAND RCO 122.6
REDMOND RCO 122.5
ROSEBURG RCO 122.55
SALEM RCO 122.6
SEXTON SUMMIT RCO 122.5
SUNRIVER RCO 122.3
WALLULA RCO 122.6

SEATTLE AFSS 122.5
BADGER MOUNTAIN RCO 122.3
BELLINGHAM RCO 122.15
BUCKHORN MTN RCO 122.2
ELLENSBURG RCO 122.2
EPHRATA RCO 122.2
HOQUIAM RCO 122.2
JUMP-OFF-JOE RCO 122.4
MOSES LAKE RCO 122.4
MT CONSTITUTION RCO 122.3
OCEAN SHORES RCO 122.4
OMAK RCO 122.2
PAINE RCO 122.55
PORT ANGELES RCO 122.6
PULLMAN RCO 122.6
SEATTLE RCO 122.5 123.65
SOUTHWEST WASHINGTON RCO 122.25 122.55
SPOKANE RCO 122.2 122.55 122.65
TATOOSH RCO 122.25
THE DALLES RCO 122.65
VANCOUVER RCO 122.35
WALLA WALLA RCO 122.3
WENATCHEE RCO 122.6
YAKIMA RCO 122.5

FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office—Federal Aviation Administration.

IDAHO

3295 Elder Street, Suite 350
Airport Plaza
Boise, ID 83705
Telephone: 208-334-1238

MONTANA

Helena Airport
2725 Skyway Drive
Helena, MT 59601
Telephone: 406-449-5270
1-800-457-9917

OREGON

Portland Flight Standards District Office
3180 NW 229th Avenue
Hillsboro, Oregon 97124
Telephone: 503-615-3200
FAX 503-615-3300

WASHINGTON

Seattle FSDO
1601 Lind Ave. S. W.
Renton, WA 98057
Telephone: 425-227-2813

Spokane FSDO
Felts Field
6133 E. Rutter Avenue
Spokane, WA 99212
Telephone: 509-532-2340

PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.
2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).
3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.
4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.
5. Where more than one route is listed the routes have equal priority for use.
6. Official location identifiers are used in the route description for VOR/VORTAC nav aids.
7. Intersection names are spelled out.
8. Navaid radial and distance fixes (e.g., ARD201113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).
9. Where two nav aids, an intersection and a navaid, a navaid and a navaid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.
10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.
11. (90–170 incl) altitude flight level assignment in hundred of feet.
12. The notations "pressurized" and "unpressurized" for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.
13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.
Sun 1300–2259 local time.
Mon thru Fri 0701–2259 local time.
Sat 0701–1459 local time.
14. Use current SIDs and STARs for flight planning.
15. For high altitude routes, the portion of the routes contained in brackets [] is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

Route		Effective Times (UTC)
Low altitude IFR traffic 13000 feet and below overflying the Portland, OR Area:		
Southbound/southwestbound.....	OLM V165 UBG.....	1400–0700
Northbound	UBG V165 OLM.....	1400–0700
Low Altitude IFR traffic 9000 feet and below overflying the Seattle, WA Area:		
Southbound/Southwestbound	V165	1400–0700
Northbound	V165	1400–0700
Eastbound	V004 SEA V002	1400–0700
Low Altitude IFR traffic 10000 to 15000 overflying the Seattle, WA Area:		
Southbound	V165 V495	1400–0700
Southbound	V023 V165 DIGGN V495	1400–0700
Eastbound	V004 SEA V2	1400–0700
Low Altitude IFR traffic 10000 to 15000 overflying the Seattle, WA Area landing in PDX area:		
Southbound	V165 V495 SEA HELNS–STAR	1400–0700
Southbound	V023 V165 DIGGN V495 SEA HELNS–STAR.....	1400–0700
Low Altitude IFR traffic from the North terminating at McMinnville, OR, Aurora State, OR, or Hillsboro, OR:		
Southbound	V165 UBG	1400–0700

PREFERRED IFR ROUTES

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
From the Eugene, OR Area: (props and turboprops, 170 and below)		
Northbound	V481 CVO V495 UBG	1400-0700
Southbound	V448 OED	1400-0700

HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
PORTLAND (PDX)		
Burbank (BUR)	J67 LIN J189 AVE FIM	1300-0600
Chicago O'Hare (ORD)	J16 MCW JVL-STAR	0000-2359
Detroit Metro-Wayne Co (DTW)	ODI J34 BAE MKG POLAR-STAR	
Houston (HOU)	(Turbojets) PNH MQP EUVR TEXNN-STAR	
Houston (IAH)	PNH MQP RIICE-STAR	
Long Beach (LGB)	J67 LIN J189 AVE FIM	1300-0600
Los Angeles (LAX)	J67 LIN J189 AVE FIM	1300-0600
Ontario (ONT)	J67 LKV J5 EHF PMD	1300-0600
Santa Ana (SNA)	J67 LIN J189 AVE FIM	1300-0600
SEATTLE BOEING FLD (BFI)		
Burbank (BUR)	SEA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Long Beach (LGB)	SEA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Los Angeles (LAX)	SEA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Ontario (ONT)	SEA J5 EHF ZIGGY-STAR	1300-0600
Santa Ana (SNA)	SEA J5 LKV J67 LIN J189 AVE FIM	1300-0600
SEATTLE/TACOMA (SEA)		
Anchorage (ANC)	(RNAV only) SQUIM AKWAY AKHOG LAIRE AKZOO JOH	
Burbank (BUR)	SUMMA-DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	BAE J34 GRR HIMEZ-STAR	
Detroit Metro-Wayne Co. (DTW)	J90 HLN J34 BAE MKG POLAR-STAR	
Houston (HOU)	(Turbojets) PNH MQP EUVR TEXNN-STAR	
Houston (IAH)	PNH MQP RIICE-STAR	
Kennedy (JFK)	J90 HLN J34 ODI J30 J90 OBK J584 CRL J554 JHW J70 LVZ LENDY-STAR	
Long Beach (LGB)	SUMMA-DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Los Angeles (LAX)	SUMMA-DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300-0600
Newark (EWR)	J90 ABR J70 GEP DLL J34 CRL J584 SLT FQM-STAR	
Ontario (ONT)	SUMMA-DP SUMMA J5 EHF PMD	1300-0600
Santa Ana (SNA)	SUMMA-DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300-0600
SPOKANE (GEG)		
Chicago O'Hare (ORD)	(FL240 and above, Turbojets) to join DPR J16 MCW JVL-STAR	0000-2359

Q-ROUTES REGULATORY

Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this A/FD volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note "GNSS REQUIRED".

Route	Segment	DME
Q1	ELMAA-ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE-EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON-EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY-ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE-ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
Q2	ETCHY-POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL-ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
Q3	ITUCO-NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
	FEPOT-FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK-FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY-FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
Q4	FINER-FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND-POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE-SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
Q5	SPTFR-ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL-SKTTT	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
	SKTTT-EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME
	HAROB-HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU-HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
Q7	HARPR-HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG-HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
	HUPTU-STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
	JINMO-JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
Q9	JOGEN-JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ-JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
	JAGWA-AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
	SUMMA-SMIGE	OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
Q11	SMIGE-SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE-REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG-DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
	PAAGE-PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
Q13	PAWLI-PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
	PITVE-PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH-LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
	All segments	None; GNSS required
Q15	All segments	None; GNSS required
Q19	PLESS-NASHVILLE	ENL, GQO, PXV, BNA, IUI, FAM, BWG, CSX
Q20	CORONA-HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
	HONDS-UNNOS	CNX, INK, CME, TXO, TCC
	UNNOS-FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
	FUSCO-JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
Q21	JONEZ-RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
Q22	GUSTI-OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY-ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJJ
	ACMES-CATLN	SJJ, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI
Q23	FORT SMITH-RAZORBACK	OKM, RZC, EOS, TUL

Route	Segment	DME
Q24	LAKE CHARLES-BATON ROUGE BATON ROUGE-IRUBE IRUBE-PAYTN	AEX, DAS, LCH, MCB, LFT, BTR AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW-WALNUT RIDGE WALNUT RIDGE-WLSUN WLSUN-POCKET CITY	ELD, MEM, LIT, FAM, RZC MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE-DEVAC	LIT, JKS, GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH-ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN-PYRMD PYRMD-HAKAT HAKAT-ESTEE	EIC, LIT, ELD, OKM, TXK ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK ARG, LIT, FAM, SGF, MEM
Q29	ESTEE-POCKET CITY HARES-MEMPHIS MEMPHIS-SIDAE SIDAE-POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA MEM, ARG, LIT, JAN, ELD, SQS MEM, PXV, BNA, BWG, ARG, ENL PXV, TTH, BWG, ENL
Q30	SIDON-VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART-JODOX JODOX-MARVELL MARVELL-TIIDE TIIDE-POCKET CITY	SQS, LIT, TXK SQS, LIT, ELD, MEM, ARG ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH BWG, PXV, ENL, TTH
Q32	EL DORADO-GAGLE GAGLE-CRAMM CRAMM-NASHVILLE NASHVILLE-SWAPP	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK JAN, SQS, MEM, ARG, VUZ, BNA, LIT BWG, MEM, VUZ, BNA, GQO BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
Q34	LITTLE ROCK-PROWL TEXARKANA-MATIE MATIE-MEMPHIS MEMPHIS-SWAPP	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL LIT, SWB, TXK, BYP, EIC, ELD, SQS LIT, ARG, MEM, ELD, SQS BWG, ARG, MEM, MKL, SQS, PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY-NEERO NEERO-WINEN WINEN-CORKR CORKR-DRAKE	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK-TWITS TWITS-DEPEC DEPEC-NASHVILLE NASHVILLE-SWAPP	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU GQO, BWG, BNA, PXV, IIU VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT-INCIN INCIN-LAREY LAREY-BESOM	DAS, LCH, SWB, IAH, LFK, HUB, AEX JAN, MCB, SWB, AEX JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA-DOOMS DOOMS-WINAP WINAP-MISLE	AEX, SWB, LCH, JAN, HEZ, MCB JAN, SQS, MEI, MCB MEI, VUZ, JYU
Q42	KIRKSVILLE-STRUK STRUK-DANVILLE DANVILLE-MUNCIE MUNCIE-HIDON	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC AIR, APE, HNN, CXR, HVQ, EWC, DJB AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN-HEVVN HEVVN-PLYER PLYER-SWABE SWABE-ST PETERSBURG ST PETERSBURG-CYPRESS	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD PIE, ORL, OMN, SRQ, TAY LAL, ORL, OMN, SRQ, PHK, PIE PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN

Route	Segment	DME
Q106	SMELZ-BULZI	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW
	BULZI-DRABK	AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI
	DRABK-GADAY	MGM, PZD, OTK, JYU, SZW, CEW, SJI
Q108	GADAY-CLAWZ	MGM, SJI, CEW, JYU, PZD, OTK, MCN, SZW, LGC, TAY, AMG
Q110	THNDR-JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
	JAYMC-RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO-KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK
Q112	GULFR-FEONA	TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
	DEFUN-HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN-INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
Q116	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK
	GULFR-CEEYA	MCN, AMG, PZD, OTK, SZW, TAY
Q118	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-LENIE	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
Q501	VIXIS-GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT, EAU,
		DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
Q502	GOPHER-SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
	KENPA-GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW,
Q504		MSP, MNM, ASP, TVC, GEP, RWF, BRD
	GOPHER-SOBME	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
	NOTAP-CESNA	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC,
Q505		SAW, GRB, BRD
	CESNA-HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
	OMAGA-RIMBE	SSM, TVC, ASP, SAW, GRB
	RIMBE-CESNA	SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
	CESNA-HEMDI	GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

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RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: <http://sua.faa.gov/sua/Welcome.do>. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non-restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MZV or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD-STAR Or MLC J105 SGF BDF BRADFORD-STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, EMG, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE-RNAV STAR or Aircraft joining J37 to the northeast, BPT GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, ELD Q32 J42

Houston Hobby	LIT, EMG, MLC, JCT, or Aircraft joining J42 to the northeast, ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFTO, CATTs or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area	GALLI, INSLO, HAROL JSICA
Oakland	GALLI, INSLO, HAROL JSICA
San Jose	GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVAC or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR
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Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501

or

Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP

or

Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY-STAR or ESPAN FRIHO-STAR or LAVAN LAVAN-STAR or FTI FRIHO-STAR or MIERA MIERA-STAR
Austin Terminal Area	Aircraft west of a north-south line at LFK, BLEWE or Aircraft east of a north-south line at LFK, IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)-STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)-STAR
Chicago Midway	CVA MOTIF-STAR or PIA MOTIF-STAR or DBQ CVA MOTIF-STAR or LMN MOTIF-STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE-STAR or TVC PULLMAN-STAR or FOD DBQ JVL JANESVILLE-STAR or MCW JANESVILLE-STAR or GCK IRK BRADFORD-STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD-STAR
	or
	HGO QUAIL-STAR
	or
	LOPEC-STAR
	or
	ALS LARKS-STAR
	or
	HBU POWDR-STAR
	or
	EKR TOMSN-STAR
	or
	CHE TOMSN-STAR
	or
	BFF LANDR-STAR
	or
	LBF SAYGE-STAR
	or
	HCT SAYGE-STAR
	or
	RSK LARKS-STAR
	or
	LAA QUAIL-STAR
	or
	GCK J154 RYLIE DANDD-STAR
	or
	OCS J154 ALPOE RAMMS-STAR
	or
	YANKI J114 SNY LANDR-STAR
	or
	Aircraft filed BIL or east, MBW RAMMS-STAR
Ft Lauderdale or Ft Lauderdale Executive	CEW DEFUN Q104 PIE SWAGS (RNAV)-STAR
	Aircraft through ZHU airspace remain south ZME and ZTL airspace
	or
Houston Bush	SZW HEVVN Q104 PIE SWAGS (RNAV)-STAR
	CRP, CVE, LLO, LUKIY, SAT
	or
	Aircraft south and east of LLA, LLA
	or
	MISLE Q40 AEX
	or
	Aircraft north and east of SJI, SJI
	or
	Aircraft east of PXV, PXV Q31 DHART SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Houston Hobby	CRP, ELLVR, SAT, SWB
	or
	Aircraft south and east of GIRLY, GIRLY
	or
	Aircraft north and east of SJI, SJI
	or
	BESOM Q38 ROKIT ROKIT-STAR
	or
	Aircraft east of PXV, PXV Q29 HARES SWB
	or
	Aircraft north and west of PXV, PROWL Q33 DHART SWB
Jacksonville	GADAY ZOOSS TAY
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	ZOOSS TAY

John Wayne–Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER–STAR or PWE ROBINSON–STAR or EMP JHAWK–STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNSY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVNV Q104 CYY DEEDS (RNAV)–STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER–STAR or RWF SKETR–STAR or ALO KASPR–STAR or BRD GOPHER–STAR or BAE EAU CLAIRE–STAR or FOD TWOLF–STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)–STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL airspace or SZW HEVNV Q104 PLYER PIKKR (RNAV)–STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE–STAR Aircraft through ZHU airspace remain south of ZME/ZTL airspace or OTK LEESE–STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE–STAR
	or
	MVA MODESTO–STAR
	or
	ENI GOLDEN GATE–STAR
	or
San Jose	OAL MODESTO–STAR
	or
	South of a line ILC to DVC, REANA KATTS OAL MODESTO–STAR
	FMG HYP EL NIDO–STAR
	or
	OAL HYP EL NIDO–STAR
Seattle Terminal Area	or
	ENI GOLDEN GATE–STAR
	or
	South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO–STAR
	Aircraft From northeast, southeast, south, TEMPL GLASR–STAR
	or
Southwest Florida Airports RSW and FMY	SUNED CHINS–STAR
	or
	BTG OLMYPIA–STAR
	CEW DEFUN Q104 SWABE JOSFF–STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
Tampa Terminal Area	SZW HEVVN Q104 SWABE JOSFF–STAR
	CEW DEFUN Q104 HEVVN DARBS–STAR
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	SZW DARBS–STAR
	or
Tucson	DRK PXR
	or
	MOHAK GBN

VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with "VP". Stand-alone VFR Waypoints are portrayed on VFR Charts using the same four-point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57' / W076°20.38'
VPONX	_____	N39°06.65' / W076°55.92'
VPOOP	_____	N38°56.32' / W076°36.90'

BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17' / W070°49.48'
VPBLT	_____	N42°19.67' / W070°53.40'
VPCGS	_____	N42°22.08' / W071°03.13'
VPEVS	_____	N42°23.52' / W071°04.10'
VPFEN	_____	N42°12.58' / W071°08.88'
VPFRE	_____	N42°25.03' / W071°12.32'
VPGLV	_____	N42°21.88' / W070°52.18'
VPHAM	_____	N42°30.13' / W071°07.15'
VPPIK	_____	N42°20.37' / W071°15.93'
VPQUA	_____	N42°12.10' / W071°04.78'
VPQUB	_____	N42°12.60' / W070°59.83'
VPSPF	_____	N42°24.20' / W071°09.47'
VPTOB	_____	N42°31.42' / W070°59.82'
VPWAN	_____	N42°36.88' / W071°19.45'

BOSTON TERMINAL AREA CHART

VPCOH	Cohasset	N42°13.58' / W070°48.94'
VPCUT	Cuttyhunk Harbor	N41°25.50' / W070°55.03'
VPFRA	Framingham Shopping Center	N42°18.16' / W071°23.65'
VPHOL	Woods Hole	N41°31.06' / W070°40.60'
VPHUL	Hull	N42°18.20' / W070°55.30'
VPLPT	Nantucket Great Point	N41°23.41' / W070°02.78'
VPNED	Needham Towers	N42°18.51' / W071°14.64'
VPPEA	Peabody Shopping Center	N42°32.52' / W070°56.69'
VPROC	Rockingham Race Track	N42°46.29' / W071°13.57'
VPSCI	Scituate	N42°11.89' / W070°43.69'
VPTPT	Nantucket Third Point	N41°18.51' / W070°03.37'
VPTUC	Tuckernuck	N41°18.31' / W070°15.43'
VPWAK	Wakefield	N42°30.72' / W071°05.24'
VPWAN	Wang Towers	N42°36.88' / W071°19.45'

CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37' / W076°31.47'
VPAVA	_____	N34°57.00' / W077°16.50'
VPBFE	_____	N32°16.38' / W080°47.50'
VPBRA	_____	N36°13.75' / W076°08.08'
VPGCE	_____	N36°03.90' / W076°36.42'
VPGHI	_____	N35°15.30' / W075°31.25'
VPGIO	_____	N35°32.50' / W076°37.33'
VPKJU	_____	N35°26.58' / W076°10.22'
VPLMN	_____	N34°55.43' / W077°46.42'
VPMAB	_____	N34°42.20' / W077°03.50'
VPNPO	ISLE OF PALMS	N32°47.78' / W079°46.45'
VPOKY	_____	N35°06.53' / W075°59.17'
VPREP	_____	N32°33.98' / W080°21.82'
VPRRS	_____	N33°25.45' / W079°07.60'
VPUMO	_____	N35°35.63' / W075°28.08'
VPWZO	_____	N36°00.87' / W075°40.07'
VPZIE	_____	N32°01.62' / W080°53.42'

CHICAGO SECTIONAL CHART

WAYPOINT IDENT
VPCOH

COLLOCATED VFR CHECKPOINT

LOCATION
N31°49.35'/W081°51.07'

DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN
VPFTG
VPNIC

NORTH INTERCHANGE

N39°44.28'/W104°26.00'
N39°44.35'/W104°32.75'
N39°58.90'/W104°59.27'

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT
VPBWY
VPDTN
VPGLA
VPGLB
VPKTY
VPPLN
VPRSN
VPSND
VPSNT
VPTNE
VPTNW
VPTRK

COLLOCATED VFR CHECKPOINT

LOCATION
N29°46.25'/W095°09.24'
N29°46.59'/W095°22.01'
N30°08.32'/W095°06.62'
N30°07.80'/W094°55.70'
N29°47.05'/W095°44.92'
N30°08.80'/W095°50.42'
N29°30.00'/W095°41.00'
N29°23.13'/W095°28.86'
N29°49.29'/W094°53.94'
N29°47.48'/W095°03.34'
N29°47.06'/W095°33.81'
N29°24.06'/W095°10.44'

JACKSONVILLE SECTIONAL CHART

VPAFI
VPAFY
VPBEC
VPCJA
VPCKY
VPCNY
VPDAD
VPDAR
VPDFI
VPDUT
VPEAR
VPEGV
VPPFU
VPGPE
VPHAA
VPHUC
VPIWA
VPJMY
VPKER
VPLEV
VPLJA
VPMIA
VPTLH
VPXZY
VPYIW
VPZIE

DADE CITY

CLEARWATER BEACH

ST PETE BEACH

MIDWAY

LAKE PARKER

N31°49.35'/W081°51.07'
N30°07.00'/W081°21.33'
N29°46.25'/W081°15.10'
N29°30.00'/W081°06.00'
N28°46.50'/W082°34.00'
N28°30.00'/W080°45.00'
N28°22.57'/W082°11.25'
N31°22.38'/W081°24.13'
N29°00.17'/W081°20.85'
N27°37.70'/W082°09.10'
N27°58.67'/W082°49.83'
N29°39.97'/W081°24.87'
N28°57.08'/W081°00.33'
N27°43.50'/W082°44.67'
N30°04.02'/W083°40.02'
N28°19.87'/W082°43.77'
N31°48.33'/W081°25.85'
N29°26.92'/W081°18.27'
N28°04.00'/W081°56.00'
N28°48.00'/W080°52.00'
N29°00.00'/W080°51.00'
N30°50.02'/W084°56.63'
N30°32.70'/W083°52.22'
N29°35.00'/W083°10.00'
N30°42.28'/W081°27.25'
N32°01.62'/W080°53.42'

KANSAS CITY SECTIONAL CHART

VPAGO
VPBEK
VPDEN
VPENE
VPESSE
VPFME
VPGXY
VPMBE
VPMKE
VPROV
VPUTT

N37°50.33'/W090°29.03'
N37°15.07'/W092°30.67'
N37°46.75'/W092°19.20'
N37°44.75'/W091°55.78'
N36°59.48'/W091°00.88'
N37°41.00'/W092°38.33'
N37°15.50'/W091°40.17'
N37°11.08'/W090°27.92'
N37°24.47'/W092°40.00'
N38°01.72'/W091°12.81'
N37°52.05'/W092°01.20'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPWOC	_____	N37°18.03' / W092°18.63'
VPWRO	_____	N37°39.12' / W091°45.68'
VPXIZ	_____	N37°26.60' / W092°05.42'

KANSAS CITY TERMINAL AREA CHART

VPATN	ATCHISON	N39°33.62' / W095°07.65'
VPBG5	BLUE SPRINGS	N39°01.82' / W094°16.32'
VPBSP	BONNER SPRINGS	N39°03.78' / W094°53.10'
VPCHB	CHOUTEAU BRIDGE	N39°08.77' / W094°32.03'
VPDSO	DE SOTO	N38°58.68' / W094°58.48'
VPESG	EXCELSIOR SPRINGS	N39°20.68' / W094°13.77'
VPGTB	GARRETSBURG	N39°40.92' / W094°41.45'
VPLAT	LATHROP WATER TANK	N39°32.87' / W094°20.00'
VPLEN	LENEXA	N38°57.77' / W094°43.68'
VPLVL	LONGVIEW LAKE	N38°54.63' / W094°28.28'
VPMCL	MC LOUTH	N39°11.65' / W095°12.50'
VPNHA	NASHUA	N39°17.83' / W094°34.80'
VPSCX	SPORTS COMPLEX	N39°03.00' / W094°29.02'
VPSKR	SUGAR CREEK REFINERY	N39°07.00' / W094°27.02'
VPSPK	SWOPE PARK	N39°00.47' / W094°31.93'
VPTSK	TWIN STACKS	N39°09.05' / W094°38.22'
VPWOF	WORLDS OF FUN	N39°10.42' / W094°29.12'

KLAMATH FALLS SECTIONAL CHART

VPORO _____ N43°57.38' /W123°02.22'

LOS ANGELES HELICOPTER CHART

VPANA		N33°44.43' /W117°50.03'
VPART	MAGNOLIA	N33°51.45' /W117°58.92'
VPAUT	HWY 91 & 55	N33°50.63' /W117°49.57'
VPBOB		N33°59.60' /W117°21.45'
VPCAR		N33°49.90' /W118°17.23'
VPCNG	CONEJO GRADE US HWY 101	N34°12.54' /W118°59.61'
VPCOR		N33°52.90' /W117°32.95'
VPCRX		N34°01.40' /W117°44.88'
VPDSU	CSU CHANNEL ISLANDS	N34°09.76' /W119°02.53'
VPDOW		N33°56.47' /W118°05.80'
VPELA		N34°00.98' /W118°10.35'
VPETY		N33°38.70' /W117°44.12'
VPFCB		N34°02.03' /W118°01.63'
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71' /W119°10.39'
VPGOL		N34°09.33' /W118°17.37'
VPIMP		N33°55.85' /W118°16.85'
VPKAT		N33°48.23' /W117°54.22'
VPKEL		N34°03.92' /W117°48.40'
VPLAC		N34°03.75' /W118°14.93'
VPLLU		N34°03.85' /W117°17.82'
VPLQM	QUEEN MARY	N33°45.17' /W118°11.37'
VPLRT	SANTA ANITA RACE TRACK	N34°08.45' /W118°02.65'
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97' /W118°16.32'
VPMDR		N33°59.27' /W118°23.97'
VPNEW	NEWHALL PASS	N34°20.18' /W118°30.72'
VPNUY		N34°09.63' /W118°28.18'
VPPCH		N33°28.07' /W117°40.32'
VPPKC		N34°03.32' /W118°12.83'
VPPOR		N34°00.10' /W117°50.12'
VPRRT		N33°59.37' /W118°16.83'
VPSEP		N34°05.80' /W118°28.63'
VPSFR		N34°17.45' /W118°28.07'
VPSTC	SATICOY BRIDGE	N34°16.62' /W119°08.34'
VPSTK		N34°13.97' /W118°24.66'

LOS ANGELES SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54'/W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76'/W119°02.53'
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71'/W119°10.39'
VPSTC	SATICOY BRIDGE	N34°16.62'/W119°08.34'

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

VPCNG	CONEJO GRADE US HWY 101	N34°12.54'/W118°59.61'
VPCSU	CSU CHANNEL ISLANDS	N34°09.76'/W119°02.53'
VPGTY	GETTY CENTER	N34°04.84'/W118°28.66'
VPLBP	BANNING PASS	N33°56.05'/W116°59.63'
VPLCC	CHAFFEY COLLEGE	N34°08.87'/W117°34.33'
VPLCP	CAJON PASS	N34°18.07'/W117°27.68'
VPLDL	DISNEYLAND	N33°48.72'/W117°55.13'
VPLDP	DANA POINT	N33°27.62'/W117°42.87'
VPLDS	DODGER STADIUM	N34°04.42'/W118°14.42'
VPLFX	91/605 INTERCHANGE	N33°52.38'/W118°06.08'
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10'/W118°18.02'
VPLHF	110/405 FWYS	N33°51.42'/W118°17.10'
VPLHP	HUNTINGTON PIER	N33°39.32'/W118°00.25'
VPLKH	KING HARBOR	N33°50.75'/W118°23.88'
VPLLC	L.A. COLISEUM	N34°00.83'/W118°17.27'
VPLLM	LAKE MATHEWS	N33°50.58'/W117°26.85'
VPLMM	MAGIC MOUNTAIN	N34°26.20'/W118°36.28'
VPLMS	MILE SQUARE PARK	N33°43.40'/W117°56.77'
VPLPD	PRADO DAM	N33°53.40'/W117°38.48'
VPLPP	PACIFIC PALISADES	N34°02.13'/W118°32.15'
VPLQM	QUEEN MARY	N33°45.17'/W118°11.37'
VPLRB	ROSE BOWL	N34°09.67'/W118°10.05'
VPLRT	SANTA ANITA RACE TRACK	N34°08.45'/W118°02.65'
VPLSA	SANTA ANA CANYON	N33°52.03'/W117°42.68'
VPLSB	SANTA FE FLOOD BASIN	N34°07.72'/W117°57.30'
VPLSC	STATE COLLEGE	N33°52.97'/W117°53.13'
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87'/W118°29.00'
VPLSP	SIGNAL PEAK	N33°36.33'/W117°48.63'
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07'/W118°21.13'
VPLSS	SANTA SUSANA PASS	N34°16.00'/W118°38.43'
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40'/W118°20.30'
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97'/W118°16.32'
VPLWT	WATER TANK	N34°10.82'/W118°46.27'
VPNEW	NEWHALL PASS	N34°20.18'/W118°30.72'
VPSTC	SATICOY BRIDGE	N34°16.62'/W119°08.34'

MIAMI SECTIONAL CHART

VPACH	HOLLYWOOD BEACH	N26°00.92'/W080°06.93'
VPBOV	_____	N27°57.00'/W080°46.75'
VPCLC	_____	N26°27.07'/W082°00.88'
VPCTE	_____	N26°09.28'/W081°20.70'
VPDAD	DADE CITY	N28°22.57'/W082°11.25'
VPDUT	_____	N27°37.70'/W082°09.10'
VPDZE	_____	N27°19.00'/W080°44.17'
VPEAR	CLEARWATER BEACH	N27°58.67'/W082°49.83'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78'/W080°28.00'
VPFAH	_____	N26°25.40'/W081°29.67'
VPGPE	ST PETE BEACH	N27°43.50'/W082°44.67'
VPHRO	_____	N27°05.97'/W082°12.20'
VPHUC	_____	N28°19.87'/W082°43.77'
VPIBR	_____	N27°12.47'/W081°40.22'
VPKER	LAKE PARKER	N28°04.00'/W081°56.00'
VPKOE	_____	N24°40.08'/W081°20.55'
VPLYV	_____	N24°49.07'/W080°49.17'
VPMB0	GULFSTREAM PARK	N25°58.57'/W080°08.17'
VPOBA	PUMPING STATION	N26°28.30'/W080°26.75'
VPRBI	_____	N25°50.67'/W080°55.18'
VPRNL	RANGER STATION	N25°22.92'/W080°36.58'
VPWMO	_____	N27°03.00'/W080°35.00'

MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92' / W080°06.93'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' / W080°28.00'
VPMB0	GULFSTREAM PARK	N25°58.57' / W080°08.17'
VPOBA	PUMPING STATION	N26°28.30' / W080°26.75'
VPRBI		N25°50.67' / W080°55.18'
VPRNL	RANGER STATION	N25°22.92' / W080°36.58'

NEW ORLEANS SECTIONAL CHART

VPGPT		N30°25.95' / W089°05.62'
VPLIP	PHILLIPS INLET	N30°16.23' / W085°59.25'
VPMAI		N30°50.02' / W084°56.63'
VPMOB		N30°23.00' / W088°31.72'
VPRAM		N30°18.95' / W089°35.88'
VPRER		N30°13.87' / W085°20.67'
VPRIV		N30°54.85' / W087°57.82'
VPSAW		N30°49.65' / W089°07.42'
VPTHR		N30°19.93' / W087°08.50'

NEW YORK HELICOPTER CHART

VPJAY		N40°59.00' / W073°07.00'
VPLYD		N40°57.37' / W073°29.59'
VPROK		N40°52.70' / W073°44.24'

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97' / W112°35.20'
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05' / W112°41.38'
VPARM	ARROWHEAD MALL	N33°38.52' / W112°13.48'
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98' / W111°59.08'
VPAZM	ARIZONA MILLS	N33°23.43' / W111°57.88'
VPBAR	BARTLETT DAM	N33°49.10' / W111°37.92'
VPCCC	COUNTRY CLUB & CANAL	N33°30.73' / W111°50.37'
VPCNL	CANAL	N33°33.23' / W111°46.89°
VPFRB	FIREBIRD LAKE	N33°16.35' / W111°58.10'
VPFTN	FOUNTAIN HILLS	N33°36.12' / W111°42.72'
VPGLX	GILA CROSSING	N33°16.55' / W112°10.08'
VPGPP	GLENDALE POWER PLANT	N33°33.27' / W112°13.00'
VPMAR	MARICOPA	N33°03.42' / W112°02.88'
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53' / W111°49.58'
VPNRV	NEW RIVER	N33°55.08' / W112°08.45'
VPNTT	NORTH TEST TRACK	N33°03.50' / W111°55.83'
VPIIR	PIR	N33°22.52' / W112°18.90'
VPQTR	QUINTERO GOLF COURSE	N33°49.53' / W112°23.58'
VPRVC	RIO VERDE COMMUNITY	N33°44.37' / W111°39.62'
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02' / W112°02.12'
VPSQP	SQUAW PEAK	N33°32.83' / W112°01.27'
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50' / W111°41.37'
VPSTN	SANTAN MOUNTAINS	N33°09.23' / W111°40.92'
VPSTT	SOUTH TEST TRACK	N32°56.25' / W111°59.67'
VPZZZ		N33°20.18' / W111°26.53'

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08' / W090°22.42'
VPBPE		N38°23.80' / W090°20.38'
VPCJY	HOLIDAY SHORES	N38°55.00' / W089°56.00'
VPCOJ	WINFIELD DAM	N39°00.28' / W090°41.23'
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18' / W090°16.47'
VPEAZ	BUSCH STADIUM	N38°37.43' / W090°11.55'
VPEDZ	WATER TANKS	N38°45.30' / W090°34.87'
VPEGR	GAS TANKS	N38°35.80' / W090°19.32'
VPEOX	ST PETERS	N38°47.17' / W090°39.25'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPFAI	HOWELL ISLAND	N38°40.00' / W090°43.00'
VPFFY	_____	N38°55.37' / W090°17.30'
VPGPF	_____	N38°35.60' / W090°26.92'
VPGVI	_____	N38°32.30' / W090°27.80'
VPHRQ	CHAIN OF ROCKS BRIDGE	N38°45.88' / W090°10.42'
VPIBO	WATERLOO	N38°20.00' / W090°09.00'
VPJMU	HORSESHOE LAKE	N38°41.00' / W090°05.00'
VPKNY	PACIFIC	N38°29.00' / W090°44.00'
VPLES	ST CHARLES	N38°47.00' / W090°30.00'
VPLIW	SIX FLAGS	N38°30.67' / W090°40.47'
VPLXU	GATEWAY ARCH	N38°37.50' / W090°11.00'
VPNSY	WOOD RIVER REFINERIES	N38°50.00' / W090°05.00'
VPNZY	WENTZVILLE	N38°48.83' / W090°50.98'
VPRAZ	JERSEYVILLE	N39°07.00' / W090°20.00'
VPROMO	FOREST PARK	N38°38.00' / W090°17.00'
VPWKO	COLUMBIA	N38°27.00' / W090°12.00'
VPXXI	MILLSTADT	N38°27.50' / W090°05.68'
VPYID	MOSENTHEIN ISLAND	N38°43.00' / W090°12.25'

SALT LAKE CITY HELICOPTER CHART

VPAIR	SALTAIR	N40°44.85' / W112°11.22'
VPBEE	SOUTH INTERCHANGE	N40°38.18' / W111°54.23'
VPBRN	BARN	N40°54.28' / W112°10.15'
VPCAP	STATE CAPITOL	N40°46.67' / W111°53.25'
VPCHS	_____	N40°42.28' / W112°05.92'
VPCOP	BINGHAM COPPER MINE	N40°31.38' / W112°09.00'
VPCWY	CAUSEWAY	N41°05.37' / W112°07.17'
VPCYN	PARLEYS CANYON	N40°42.67' / W111°48.10'
VPFPC	FREE PORT CENTER	N41°05.92' / W112°02.27'
VPFPK	FRANCIS PEAK	N41°01.98' / W111°50.30'
VPGFS	GARFIELD STACK	N40°43.28' / W112°11.88'
VPHVE	SPAGHETTI BOWL	N40°43.50' / W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02' / W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80' / W112°05.80'
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08' / W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50' / W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50' / W111°53.37'
VPMSH	_____	N41°01.67' / W112°02.47'
VPNSL	_____	N40°50.15' / W111°54.90'
VPNTP	_____	N41°03.57' / W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13' / W112°00.45'
VPOPS	POWER STATION	N41°20.38' / W112°02.78'
VPPEN	STATE PRISON	N40°29.88' / W111°53.62'
VPPPT	PROMONTORY POINT	N41°12.28' / W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42' / W111°54.83'
VPVPO	PROVO CANYON	N40°18.77' / W111°39.45'
VPRWY	_____	N40°48.48' / W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83' / W111°54.85'
VPTIP	SOUTH TIP	N40°50.93' / W112°10.92'
VPWBR	WEBER CANYON	N41°08.17' / W111°54.83'
VPWBT	_____	N40°38.00' / W112°03.33'

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR	SALTAIR	N40°44.85' / W112°11.22'
VPBEE	SOUTH INTERCHANGE	N40°38.18' / W111°54.23'
VPBRN	BARN	N40°54.28' / W112°10.15'
VPCAP	STATE CAPITOL	N40°46.67' / W111°53.25'
VPCHS	_____	N40°42.28' / W112°05.92'
VPCOP	BINGHAM COPPER MINE	N40°31.38' / W112°09.00'
VPVCI	CENTERVILLE INTERCHANGE	N40°55.30' / W111°53.43'
VPCWY	CAUSEWAY	N41°05.37' / W112°07.17'
VPCYN	PARLEYS CANYON	N40°42.67' / W111°48.10'
VPFPC	FREE PORT CENTER	N41°05.92' / W112°02.27'
VPFPK	FRANCIS PEAK	N41°01.98' / W111°50.30'
VPGFS	GARFIELD STACK	N40°43.28' / W112°11.88'

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHVE	SPAGHETTI BOWL	N40°43.50'/W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02'/W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80'/W112°05.80'
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08'/W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50'/W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50'/W111°53.37'
VPMSH	_____	N41°01.67'/W112°02.47'
VPNSL	_____	N40°50.15'/W111°54.90'
VPNTP	_____	N41°03.57'/W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13'/W112°00.45'
VPOPS	POWER STATION	N41°20.38'/W112°02.78'
VPPEP	STATE PRISON	N40°29.88'/W111°53.62'
VPPTT	PROMONTORY POINT	N41°12.28'/W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42'/W111°54.83'
VPVPO	PROVO CANYON	N40°18.77'/W111°39.45'
VPRWY	_____	N40°48.48'/W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83'/W111°54.85'
VP TIP	SOUTH TIP	N40°50.93'/W112°10.92'
VPUOU	U OF U EVENTS CENTER	N40°45.73'/W111°50.28'
VPWBR	WEBER CANYON	N41°08.17'/W111°54.83'
VPWBT	_____	N40°38.00'/W112°03.33'
VPZOO	HOGLE ZOO	N40°45.00'/W111°48.95'

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62'/W117°42.87'
VPLSP	SIGNAL PEAK	N33°36.33'/W117°48.63'
VPOCN	_____	N33°14.15'/W117°26.63'
VPSBC	BARONA CASINO	N32°56.25'/W116°52.60'
VPSBL	_____	N33°05.18'/W117°18.55'
VPSBM	BLACK MOUNTAIN	N32°58.87'/W117°07.00'
VPSCF	_____	N32°48.55'/W117°09.17'
VPSCM	COWLES MOUNTAIN	N32°48.72'/W117°01.97'
VPSCP	CRYSTAL PIER	N32°47.77'/W117°15.42'
VPSCR	_____	N32°39.37'/W117°07.30'
VPSFB	IRON MOUNTAIN	N32°58.25'/W116°57.33'
VPSLJ	LAKE JENNINGS	N32°51.53'/W116°53.28'
VPSMB	_____	N32°45.57'/W117°12.22'
VPSMP	_____	N33°22.70'/W117°36.75'
VPSMS	MOUNT SOLEDAD	N32°50.40'/W117°15.10'
VPSMV	_____	N32°45.75'/W117°09.80'
VPSMW	MOUNT WOODSON	N33°00.52'/W116°58.23'
VPSOP	OTAY MESA PRISON	N32°35.82'/W116°55.28'
VPSOT	LOWER OTAY LAKE	N32°37.73'/W116°55.38'
VPSPL	SOUTH POINT LOMA	N32°39.90'/W117°14.55'
VPSPP	POWER PLANT	N33°08.25'/W117°20.23'
VPSQS	QUALCOMM STADIUM	N32°46.98'/W117°07.23'
VPSRT	DEL MAR RACE TRACK	N32°58.58'/W117°15.95'
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78'/W116°56.18'
VPSSV	SAN VICENTE ISLAND	N32°55.53'/W116°55.00'
VPSTP	TORREY PINES GOLF COURSE	N32°54.17'/W117°14.68'
VPSVA	_____	N33°11.48'/W117°16.38'

SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75'/W119°53.20'
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SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35'/W121°35.42'
VPANT	ANTIOCH BRIDGE	N38°01.45'/W121°45.02'
VPBBR	BENICIA BRIDGE	N38°02.50'/W122°07.45'
VPCL	CALAVERAS RESERVOIR	N37°28.16'/W121°48.93'
VPCBT	LAKE CHABOT	N37°43.68'/W122°06.94'
VPCOY	COYOTE HILLS	N37°32.50'/W122°05.06'
VPCQZ	CARQUINEZ BRIDGE	N38°03.66'/W122°13.52'
VPCRL	_____	N37°11.00'/W121°41.06'
VPCRY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56'/W122°21.10'

WAYPOINT IDENT

VPCSH
VPDAM
VPDLR
VPDUB
VPEMB
VPGGF
VPGIL
VPHHH
VPKGO
VPLEX
VPMID
VPMOR
VPNUM
VPPAC
VPPRU
VPSAR
VPSLA
VPSTB
VPSUN
VPUTC
VPWAL
VPWAM
VPWFR

COLLOCATED VFR CHECKPOINT

CAL STATE UNIVERSITY
DEL VALLE DAM

DUBLIN
EMBASSY SUITES
GOLDEN GATE FIELDS
GILROY
HAMILTON
KGO
LEXINGTON RESERVOIR
MID-SPAN SAN MATEO BRIDGE
MORMON TEMPLE
NUMMI PLANT

PRUNEYARD
SARATOGA
SLAC/LINEAR ACCELERATOR
STINSON BEACH
SUNOL GOLF COURSE
U.T.C.
WALNUT CREEK

CEMENT PLANT

LOCATION

N37°39.52'/W122°03.52'
N37°36.91'/W121°44.78'
N37°07.00'/W121°47.06'
N37°42.06'/W121°55.36'
N37°26.05'/W121°53.83'
N37°53.07'/W122°18.71'
N37°01.37'/W121°33.99'
N38°03.58'/W122°30.66'
N37°31.58'/W122°06.10'
N37°11.66'/W121°59.18'
N37°36.28'/W122°11.81'
N37°48.46'/W122°11.95'
N37°29.56'/W121°56.58'
N37°38.00'/W122°32.07'
N37°17.33'/W121°56.01'
N37°15.26'/W122°02.33'
N37°24.75'/W122°14.35'
N37°54.45'/W122°40.41'
N37°34.85'/W121°53.23'
N37°13.93'/W121°41.35'
N37°53.78'/W122°04.30'
N37°30.28'/W122°10.00'
N37°30.88'/W122°12.26'

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV
VPCNY
VPDAD
VPDFI
VPDUT
VPEAR
VPFFU
VPGPE
VPHUC
VPKER
VPLEV
VPLJA

DADE CITY

CLEARWATER BEACH

ST PETE BEACH

LAKE PARKER

N27°57.00'/W080°46.75'
N28°30.00'/W080°45.00'
N28°22.57'/W082°11.25'
N29°00.17'/W081°20.85'
N27°37.70'/W082°09.10'
N27°58.67'/W082°49.83'
N28°57.08'/W081°00.33'
N27°43.50'/W082°44.67'
N28°19.87'/W082°43.77'
N28°04.00'/W081°56.00'
N28°48.00'/W080°52.00'
N29°00.00'/W080°51.00'

WASHINGTON SECTIONAL CHART

VPACE
VPAXI
VPBRA
VPGCE
VPWZO

N38°07.82'/W076°48.75'
N38°34.57'/W076°20.38'
N36°13.75'/W076°08.08'
N36°03.90'/W076°36.42'
N36°00.87'/W075°40.07'

VOR RECEIVER CHECK VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

261

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

NOTE: Under columns headed "Type of Checkpoint" & "Type of VOT Facility" G stands for ground. A/ stands for airborne followed by figures (2300) or (1000–3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

IDAHO

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Boise	113.3/BOI	A/5000	090	6.2	Over dam outlet S end Lucky Peak Reservoir
Boise (Boise Air Terminal–Gowen Field).....	113.3/BOI	G	275	1.0	On twy C adjacent to the intersection of Twy B at apch end Rwy 28L.
Coeur D'Alene	108.8/COE	A/4000	011	9.0	Over amusement park.
Idaho Falls (Idaho Falls Rgnl).....	109.0/IDA	G	208		At intersection of Twys A and A3.
Nez Perce (Lewiston–Nez Perce County).....	108.2/MQGN	A/3000	247	6.2	Over tetrahedron on arpt.
Pocatello (Pocatello Rgnl)	112.6/PIH	A/5800	034	8.7	Over radio antenna with white storage tanks at base.
Twin Falls (Twin Falls–Sun Valley Reg Joslin Fld)	115.8/TWF	G	065	0.8	On runup area at apch end Rwy 25.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Boise	116.7	G	

MONTANA

RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Billings	114.5/BIL	A/5000	199	10.5	Over refinery at Laurel.
Bozeman (Gallatin Fld)	112.4/BZN	G	272	0.5	Twy at apch end Rwy 12.
	112.4/BZN	G	137	1.0	On runup as at apch end Rwy 30.
Coppertown (Bert Mooney).....	111.6/CPN	A/6600	098	11.5	Over intersection of Rwy's 11–29 and 15–33.
Dillon	113.0/DLN	A/7000	245	5.0	Over letter 'B' on bluff.
Great Falls (Great Falls Intl)	115.1/GTF	G	030	2.3	On Twy A between A5 and A6.
	115.1/GTF	G	030	2.9	At intersection of Twy A and A3.
Havre	111.8/HVR	A/4000	278	8.0	Over S end of dam.
Helena (Helena Rgnl).....	117.7/HLN	G	238	0.7	On Twy E on South side of Rwy 27.
Kalispell (Glacier Park Intl)	108.4/FCA	A/4000	316	6.4	Over apch end Rwy 30.

VOR RECEIVER CHECK

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Lewistown (Lewistown Muni)	112.0/LWT	A/5200	075	5.6	Over apch end Rwy 07.
Livingston	116.1/LVM	A/6500	237	5.5	Over northern most radio twr NE of city.
Miles City (Frank Wiley Field)	112.1/MLS	G	036	4.2	On twy leading to Rwy 30.
Missoula (Missoula Intl)	112.8/MSO	G	344	0.6	Terminal ramp east of Twy D.

OREGON

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Astoria (Astoria Regional)	114.0/AST	G	153	.5	East edge of ramp in front of large hangar.
Baker	115.3/BKE	A/6000	136	6.7	Over microwave tower on bluff.
Corvallis (Corvallis Muni)	115.4/CVO	G	049	0.5	On S edge of terminal ramp.
Eugene (Mahlon Sweet Field)	112.9/EUG	G	071	0.5	On ramp immediately W of tower.
Klamath Falls (Klamath Falls).....	115.9/LMT	G	298	1.0	On ramp N of Twy E.
North Bend (North Bend Muni).....	112.1/OTH	G	255	3.5	On circle at intersection twys to Rwys 13-31 and 04-22.
Pendleton (Eastern Oregon Rgnl At Pendleton)	114.7/PDT	G	073	3.9	On twy B.
Rogue Valley (Rogue Valley Intl)	113.6/OED	A/3000	213	4.8	Over radio tower.
Roseburg (Roseburg Rgnl)	108.2/RGB	A/2500	337	3.0	Over S end of Rwy 16-34.
Wildhorse	113.8/ILR	A/6500	225	6.0	Over smoke stack.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Portland Intl	111.0	G	
Portland Hillsboro	115.2	G	
Rogue Valley Intl-Medford	117.2	G	Unusable on Twy A-6, hangar area W of Twy A-6 and Twy A NW of Twy C.

WASHINGTON

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Ellensburg (Bowers Field)	117.9/ELN	A/2300	255	3.5	Over W end of Rwy 07-25.
Ephrata (Ephrata Muni).....	112.6/EPH	A/2300	202	5.8	Over intersection of Rwys 02-20 and 11-29.
Hoquiam (Bowerman)	117.7/HQM	A/1100	062	8.4	Over centerline on apch end Rwy 06.
Whatcom (Bellingham Intl)	113.0/HUH	A/1700	162	5.4	Over Nooksack River/Interstate 5 Bridge.

VOR RECEIVER CHECK

263

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Moses Lake (Grant County Intl).....	115.0/MWH	G	155	1.4	On runup area Rwy 32R.
	115.0/MWH	G	194	1.2	On runup area Rwy 04.
	115.0/MWH	G	313	1.0	On runup area Rwy 14L.
Olympia (Olympia Rgnl)	113.4/OLM	G	350	0.3	On E runup area Rwy 17.
Paine (Snohomish Co (Paine Fld))	110.6/PAE	G	173	0.8	Intersection of Rwy 11 and Twy H.
				1.1	On Twy A-7.
Pasco (Tri-Cities).....	108.4/PSC	G	098		Twy Echo at Rwy 30 run-up area.
Seattle	116.8/SEA	A/2000	197	27.0	Over Nisqually River/Interstate 5 bridge.
Seattle	116.8/SEA	A/2500	308	19.5	Over NW end of bridge and Hwy 305.
Seattle (Crest Airpark)	116.8/SEA	A/2000	107	10.3	Over centerline on apch end Rwy 33.
Tatoosh (Sekiu)	112.2/TOU	A/2500	077	12.4	Over AER 08.
Walla Walla (Martin Field)	116.4/ALW	A/1500	225	5.6	Over largest hangar.
Walla Walla (Walla Walla Rgnl).....	116.4/ALW	G	035	0.5	At the intersection of Twys A and C.
Wenatchee (Pangborn Mem).....	111.0/EAT	G	105	0.6	On Twy at apch end of Rwy 30.
Yakima	116.0/YKM	A/3500	210	4.1	Over single tower on ridge line.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Seattle (Boeing Field/King County Intl)	108.6	G	
Seattle (Seattle Tacoma Intl)	117.5	G	
Spokane (Felts Field).....	114.0	G	
Spokane Intl	109.6	G	

WYOMING

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Boysen Reservoir	117.8/BOY	A/6500	180	25	Over Riverton VOR.
Jackson (Jackson Hole)	115.4/JAC	G	174	0.5	On Twy A, approximately 1,000' S of AER 19.
Muddy Mountain (Casper/Natrona Co Intl) ..	116.2/DDY	A/6400	204	13.4	Over intersection Rwy's 03-21, 08-26 and 12-30.
Newcastle (Mondell Fld).....	108.2 ECS	A/5500	116	4.9	Over radio towers with strobe lights.
Rawlins (Rawlins Muni)	109.4/RWL	A/7500	093	5.5	Bridge over railroad track east of refinery.
	109.4/RWL	G	050	0.8	Runup area Rwy 22.
Rock Springs (Rock Springs-Sweetwater County)	116.0/OCS	G	270	2.3	Intersection twy to Rwy 09-27.
Sheridan (Sheridan County).....	115.3/SHR	A/5000	129	5.0	Over centerline approach end Rwy 14.

The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

- (1) Been in operation for at least 1 year.
- (2) Operate year round (at least on weekends).
- (3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
IDAHO			
Burley	13 NM; 035° Burley	15,000	Daily SR-SS.
(c) Caldwell Industrial Arpt.....	20 NM; 269° Boise	17,500	5 NM radius. 1/2 hour before SR-1 hour after SS.
(c) Star Skydiving Center.....	17 NM; 289° Boise	16,000	5NM radius. SR-2 hrs after SS daily.
MONTANA			
Bozeman Gallatin Fld Arpt.....	1 NM; 038° Bozeman	15,000	2 NM radius. SR-SS daily.
(c) Butler Creek	19 NM; 296° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
Dornblaser Fld.....	5.2 NM; 120° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
(c) Grant Creek	1.5 NM; 053° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
(c) Helena, Ft Harrison	6 NM; 265° Helena	12,000	1 NM radius. Wed-Sun SR-SS.
Kalispell	6 NM; 227° Kalispell	14,000	1 NM radius. 0900-SS daily.
(c) Kalispell, Carson Fld Arpt.....	28 NM; 238° Kalispell	14,000	2 NM radius. 0800-SS daily.
Kalispell, City Arpt.....	6 NM; 230° Kalispell	14,000 AGL	2 NM radius. 0800-SS daily.
(c) Laurel Muni Arpt	9 NM; 208° Billings	14,500	2 NM radius. Daily SR-SS.
Livingston, Mission Fld.....	1 NM; 010° Livingston	14,500	2 NM radius. Daily SR-SS.
(c) Missoula Intl Arpt	1.4 NM; 315° Missoula	1,500 AGL	0.5 NM radius. May-Sep daily SR-SS, Oct-Apr occasional use.
Nine Mile R.S.	17 NM; 289° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
(c) Raser Ranch	2 NM; 357° Missoula	3,000 AGL	0.5 NM radius Apr-Oct occasional use.
Roundup Arpt.....	40 NM; 351° Billings	14,500	Weekends SR-SS.
(c) Six Mile	15 NM; 300° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
(c) Stevensville Arpt.....	25 NM; 162° Missoula	14,000	1 NM radius. Wed and weekends SR-SS.
Stoney Creek.....	17 NM; 296° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
Three Forks Arpt.....	18 NM; 275° Bozeman	14,500	2 NM radius. Daily SR-SS.
University Campus.....	5 NM; 108° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
West Yellowstone, Yellowstone Arpt.....	60 NM; 034° DuBois	1,500 AGL	June-Sep.
OREGON			
(c) Albany, Northwest Parachute Club	18 NM; 032° Corvallis	13,000	2 NM radius. SR-1 hr after SS Wed-Sun. Occasional hours Mon-Tue.
(c) Creswell, Hobby Fld.....	15 NM; 120° Eugene	15,000	5 NM radius. SR-SS daily.
(c) Estacada, Beaver Oaks Arpt.....	25 NM; 076° Newberg	13,000 AGL	1.5 NM radius. 0800-2300 Daily.
(c) Hermiston Muni Arpt.....	16 NM; 280° Pendleton	15,000	2 NM radius. SR-SS weekends. Occasional hours weekdays.
(c) Medford, Beagle Sky Ranch Arpt.....	5 NM; 350° Rogue Valley	14,000	Daily SR-2200.
(c) Mollala, Sky Dive Oregon Arpt.....	19 NM; 110° Newberg	14,500	5 NM radius. 0800-2200, Daily. Portland Intl Tower 118.1
(c) Redmond, Cline Falls Air Park Arpt....	3 NM; 010° Deschutes	13,000	3 NM radius. 0800-2100.

PARACHUTE JUMPING AREAS

265

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
WASHINGTON			
(c) Coupeville NOLF.....	5 NM; 110° Penn Cove	12,500 AGL	2 NM radius. Occasional use.
Fort Lewis, Abrams Drop Zone.....	7.5 NM; 200° McChord.....	10,000	1 NM radius. Occasional use.
Fort Lewis, Anzio Drop Zone.....	9 NM; 160° McChord.....	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Dakto Drop Zone.....	7.5 NM; 175° McChord.....	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Darby Drop Zone.....	8.5 NM; 097° Olympia	10,000	0.5 NM radius. Occasional use.
Fort Lewis, El Guettar Drop Zone.....	7.5 NM; 092° Olympia	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Gray AAF Drop Zone.....	6 NM; 210° McChord.....	10,000	1 NM radius. Occasional use.
Fort Lewis, Marion Drop Zone.....	11 NM; 190° McChord.....	10,000	1 NM radius. Occasional use.
Fort Lewis, Merrill Drop Zone.....	9 NM; 092° Olympia	10,000	0.5 NM radius. Occasional use.
Fort Lewis, Mytkina Drop Zone.....	10 NM; 065° Olympia	10,000	1 NM radius. Occasional use.
Fort Lewis, Point Salinas Drop Zone....	7.5 NM; 201° McChord.....	10,000	1 NM radius. Occasional use.
Fort Lewis, Pointe De Hoc Drop Zone..	11.5 NM; 192° McChord	10,000	0.25 NM radius. Occasional use.
Fort Lewis, Rogers Drop Zone.....	7 NM; 155° McChord.....	10,000	0.5 NM radius. Occasional use.
Fort Lewis, Solo Drop Zone	6.5 NM; 245° McChord.....	10,000	1 NM radius. Occasional use.
Kennewick, Vista Field.....	5.1 NM; 217° Pasco.....	14,500	1 NM radius. SR-SS weekends, 1700-SS weekdays, Apr-Nov.
(c) Larson Drop Zone.....	17 NM; 217° Moses Lake	3,000	Continuous. Personnel and hvy equip. Grant Co Intl Tower 126.4
Monroe, Firstair Fld.....	14 NM; 091° Paine	12,500	0.5 mi radius. Daily SR-SS.
(c) Richland Arpt.....	8 NM; 270° Pasco.....	13,000	2 NM radius. Continuous.
(c) Ritzville, West Plains Skydiving Drop Zone	36.4 NM; 207° Spokane	15,000	2 NM radius. SR-SS weekends, 1700-SS weekdays. Heavy use Apr-Nov.
(c) Shelton, Sanderson Fld Arpt.....	19 NM; 309° Olympia	14,000	2 NM radius. Daily 0800-2300.
(c) Snohomish, Harvey Fld.....	7 NM; 078° Paine	15,000	2 NM radius. Continuous.
(c) Snohomish, Harvey Fld.....	8 NM; 075° Paine	15,000	1 NM radius. Continuous.
(c) Spokane, Hayford Drop Zone.....	12 NM; 340° Spokane	10,000	0.5 NM radius. Occasional use.
(c) Tacoma, McChord AFB.....	28 NM, 181° Seattle	15,000	Weekends and occasional nights.
(c) Tekoa, Willard Fld.....	31 NM; 110° Spokane	12,500	1 NM radius. Daily.
(c) Toledo, Ed Carlson Mem Fld-South Lewis Co.....	30 NM; 150° Olympia	12,500	5 NM radius. Continuous.

The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

BILLINGS SECTIONAL

78th Edition, 27 Aug 2009

OBSTRUCTIONS

27 Aug 2009 No Major Changes.

22 Oct 2009 Add obst 2409' MSL (310' AGL) UC, 46°33'37"N, 101°12'48"W.

Add obst 1981' MSL (295' AGL) UC, 46°23'06"N, 100°37'17"W.

Add obst 2361' MSL (260' AGL) UC, 47°34'40"N, 100°36'13"W.

Add obst 2237' MSL (260' AGL) UC, 47°24'38"N, 100°35'22"W.

Add obst 2437' MSL (260' AGL) UC, 46°31'55"N, 101°33'11"W.

17 Dec 2009 Add obst 2721' MSL (340' AGL), 48°18'42"N, 102°39'44"W.

AIRPORTS

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete MORGAN arpt, 49°00'00"N, 107°49'32"W.

Delete DORBRINSKI arpt, 47°53'52"N, 101°51'17"W.

Delete LOHSE arpt, 48°34'43"N, 103°27'59"W.

BELLE CREEK arpt abandoned, 45°07'30"N, 105°05'32"W.

17 Dec 2009 Change RP 12 to RP 13 at BLACK HILL-CLYDE ICE arpt, 44°28'46"N, 103°47'02"W.

Change CTAF 122.8 to 122.9 at SOUTH BIG HORN CO arpt, 44°31'01"N, 108°04'58"W.

Delete GRENORA CENTENNIAL arpt, 48°37'32"N, 103°55'48"W.

NAVAIDS

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete PARSHALL NDB, 47°56'10"N, 102°08'14"W.

17 Dec 2009 No Major Changes.

AIRSPACE

27 Aug 2009 No Major Changes.

22 Oct 2009 Add PLENTYWOOD, MT Class E: That airspace extending upward from 700 feet above the surface within a 6.8-mile radius of Plentywood Sher-wood Airport; and that airspace extending upward from 1,200 feet above the surface of the earth bounded by a line beginning at 49°00'00"N, 105°02'00"W; to 49°00'00"N, 104°02'00"W; to 48°32'35"N, 104°02'00"W; to 48°27'00"N, 104°11'12"W; to 48°40'00"N, 105°02'00"W; thence to the point of origin.

17 Dec 2009 Revise TIOGA, ND, Class E: That airspace extending upward from 700 feet above the surface within a 6.7-mile radius of Tioga Municipal Airport and within 4 miles either side of the 133° bearing from the Tioga Municipal Airport extending from the 6.7-mile radius to 10.2 miles southeast of the airport; and that airspace extending upward from 1,200 feet above the surface bounded on the north by latitude 49°00'00"N, on the east by the 47-mile radius of Minot AFB, on the south by V-430, on the southwest by the 21.8-mile radius of the Williston VORTAC, and on the west by the North Dakota/Montana state boundary.

SPECIAL USE AIRSPACE

27 Aug 2009 – 17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

27 Aug 2009 – 17 Dec 2009 No Major Changes.

MISCELLANEOUS

27 Aug 2009 – 17 Dec 2009 No Major Changes.

CF-16 WORLD AERONAUTICAL CHART
38th Edition, 15 Jan 2009**OBSTRUCTIONS****12 Mar 2009 – 17 Dec 2009** No Major Changes.**AIRPORTS****12 Mar 2009 – 17 Dec 2009** No Major Changes.**NAVAIDS****12 Mar 2009** Change ROME VORTAC freq from 122.5 to 112.5, 42°35'26"N, 117°52'05"W.**7 May 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****12 Mar 2009 – 17 Dec 2009** No Major Changes.**SPECIAL USE AIRSPACE****12 Mar 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****12 Mar 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****12 Mar 2009 – 17 Dec 2009** No Major Changes.

CHEYENNE SECTIONAL
80th Edition, 30 Jul 2009**OBSTRUCTIONS****27 Aug 2009** Add windmill farm. 6365'UC is highest MSL, 43°04'40"N, 105°50'43"W.

Add obst 6988'MSL (407'AGL)UC, 41°08'23"N, 104°59'52"W.

22 Oct 2009 Add obst 7523'MSL (263'AGL)UC, 41°39'15"N, 106°04'16"W.

Add obst 7508'MSL (391'AGL)UC, 41°40'22"N, 105°59'52"W.

Add obst 5157'MSL (258'AGL)UC, 42°41'04"N, 103°55'53"W.

17 Dec 2009 Add obst 6584'MSL (363'AGL)UC, 41°10'42"N, 104°53'05"W.

Add obst 5047'MSL (350'AGL)UC, 41°38'30"N, 104°08'23"W.

Add obst 5078'MSL (341'AGL)UC, 43°43'57"N, 105°21'49"W.

Add obst 5208'MSL (305'AGL)UC, 43°24'53"N, 106°15'06"W.

Add obst 7127'MSL (262'AGL)UC, 41°57'30"N, 106°26'20"W.

AIRPORTS**27 Aug 2009 – 22 Oct 2009** No Major Changes.**17 Dec 2009** Change RP 12 to RP 13 at BLACK HILLS-CLYDE ICE arpt, 44°28'52"N, 103°47'09"W.

Change CTAF 122.8 to 122.9 at SOUTH BIG HORN CO arpt, 44°31'00"N, 108°04'58"W.

NAVAIDS**27 Aug 2009** Delete ANTELOPE NDB, 41°36'15"N, 109°00'06"W.**22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****27 Aug 2009** Add RUSHVILLE, NE Class E: That airspace extending upward from 700 feet above the surface within a 7.3-mile radius of Modisett airport.**22 Oct 2009 – 17 Dec 2009** No Major Changes.**SPECIAL USE AIRSPACE****27 Aug 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****27 Aug 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****27 Aug 2009 – 17 Dec 2009** No Major Changes.

GREAT FALLS SECTIONAL**77th Edition, 2 Jul 2009****OBSTRUCTIONS****2 Jul 2009** No Major Changes.**27 Aug 2009** Add obst 4190' MSL (300' AGL) UC, 48°32'20"N, 112°14'12"W.

Add windmill farm 4208' UC is highest MSL, 48°32'01"N, 112°08'37"W.

22 Oct 2009 – 17 Dec 2009 No Major Changes.**AIRPORTS****2 Jul 2009** No Major Changes.**27 Aug 2009** Delete COTTONTAIL arpt, 46°07'56"N, 110°02'50"W.

Delete FRAMPTON arpt, 47°58'43"N, 115°46'05"W.

Change MISSOULA INTL ATCT freq from 387.1 to 377.175, 46°54'59"N, 114°05'26"W.

22 Oct 2009 No Major Changes.**17 Dec 2009** Change CTAF 122.8 to 122.9 at FAIRFIELD arpt, 47°37'45"N, 111°58'48"W.**NAVAIDS****2 Jul 2009** No Major Changes.**27 Aug 2009** Add LEENY NDB, freq 347, ident (LEN), class MHW, 47°44'34"N, 116°57'40"W.**22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****2 Jul 2009 – 22 Oct 2009** No Major Changes.**17 Dec 2009** Add RONAN, MT Class E: That airspace extending upward from 700 feet above the surface within a 8.4-mile radius of Ronan Airport.**SPECIAL USE AIRSPACE****2 Jul 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****2 Jul 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****2 Jul 2009 – 17 Dec 2009** No Major Changes.

KLAMATH FALLS SECTIONAL**81st Edition, 24 Sep 2009****OBSTRUCTIONS****22 Oct 2009** No Major Changes.**17 Dec 2009** Add obst 721' MSL (211' AGL), 43°31'58"N, 124°12'18"W.**AIRPORTS****22 Oct 2009** Delete RED & WHITE arpt, 43°07'09"N, 121°02'41"W.

Delete UNITY arpt, 44°27'05"N, 118°11'12"W.

17 Dec 2009 Delete CUBEHOLE arpt, 44°21'52"N, 122°57'30"W.

Delete WILSON arpt, 44°12'44"N, 120°31'26"W.

Delete LAWEN arpt, 43°28'46"N, 118°49'51"W.

NAVAIDS**22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****22 Oct 2009** Add NORTH BEND, OR Class D: That airspace extending upward from the surface to and including 2500 feet MSL within a 4.2-mile radius of the Southwest Oregon Regional Airport. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.**17 Dec 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009 – 17 Dec 2009** No Major Changes.

SALT LAKE CITY HELICOPTER ROUTE CHART**3rd Edition, 26 Oct 2006****OBSTRUCTIONS****23 Nov 2006 – 17 Dec 2009** No Major Changes.**AIRPORTS****23 Nov 2006 – 10 Apr 2008** No Major Changes.**5 Jun 2008** Delete PAYNE arpt, 41°05'54"N, 112°06'56"W.

Delete WARD heli, 40°35'59"N, 111°48'03"W.

31 Jul 2008 – 20 Nov 2008 No Major Changes.**20 Nov 2008** Delete CHANNEL 4 heli, 40°43'57"N, 111°57'20"W.**15 Jan 2009 – 17 Dec 2009** No Major Changes.**NAVAIDS****23 Nov 2006 – 17 Dec 2009** No Major Changes.**AIRSPACE****23 Nov 2006 – 17 Dec 2009** No Major Changes.**SPECIAL USE AIRSPACE****23 Nov 2006 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****23 Nov 2006 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****23 Nov 2006 – 17 Dec 2009** No Major Changes.**SALT LAKE CITY SECTIONAL****82nd Edition, 22 Oct 2009****OBSTRUCTIONS****22 Oct 2009** No Major Changes.**17 Dec 2009** Change obst from 6143' MSL (302' AGL) to 6214' MSL (345' AGL), 42°51'46"N, 112°31'06"W.**AIRPORTS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**NAVAIDS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****22 Oct 2009** No Major Changes.**17 Dec 2009** Add airway V626 from MYTON VOR/DME, (MTU)250° to FAIRFIELD VOTAC, (FFU) 110°.**SPECIAL USE AIRSPACE****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**SALT LAKE CITY TERMINAL AREA CHART****41st Edition, 22 Oct 2009****OBSTRUCTIONS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRPORTS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**NAVAIDS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**AIRSPACE****22 Oct 2009 – 17 Dec 2009** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009 – 17 Dec 2009** No Major Changes.**MISCELLANEOUS****22 Oct 2009 – 17 Dec 2009** No Major Changes.

SEATTLE SECTIONAL
78th Edition, 17 Dec 2009

OBSTRUCTIONS

17 Dec 2009 No Major Changes.

AIRPORTS

17 Dec 2009 No Major Changes.

NAVAIDS

17 Dec 2009 No Major Changes.

AIRSPACE

17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

17 Dec 2009 No Major Changes.

MISCELLANEOUS

17 Dec 2009 No Major Changes.

SEATTLE TERMINAL AREA CHART
73rd Edition, 17 Dec 2009

OBSTRUCTIONS

17 Dec 2009 No Major Changes.

AIRPORTS

17 Dec 2009 No Major Changes.

NAVAIDS

17 Dec 2009 No Major Changes.

AIRSPACE

17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

17 Dec 2009 No Major Changes.

MISCELLANEOUS

17 Dec 2009 No Major Changes.

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SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private-use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

UNITED STATES

FACILITY NAME	CHART & PANEL
Frankfort, IL (LL40)	L-28H
Chicago App/Dep Con 133.1 285.6	
Glasgow Industrial, MT (Ø7MT)	H-1E, 2F, L-13D
Salt Lake Center App/Dep Con 126.85 305.2	
USAF Academy Bullseye Aux Airstrip, CO (C09Ø)	L-10F
ASOS 118.325	
West Kentucky Airpark, KY (5KY3)	L-16I
Memphis Center App/Dep Con 133.65 292.15	
William P Gwinn, FL (Ø6FA)	H-8I, L-23C
Gwinn Tower 120.4 279.25 (Mon-Fri 1300-2100Z‡)	
Gnd Con 121.65 279.25	

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX)	H-1B, L-12F
ATIS 119.8 (1500-Ø700Z‡)	
Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8	
Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500-Ø700Z‡) Gnd Con 121.8	
MF 119.4 295.0 (Ø700-1500Z‡) (Shape irregular to 4500')	
Amos/Magny, QC (CYEY)	H-11B
Montreal Center App/Dep Con 125.9	
Atikokan Muni, ON (CYIB)	L-14I
MF 122.3 (5 NM to 4500' No ground station)	
Barrie-Orillia (Lake Simcoe Rgnl), ON (CYLS)	H-11B, L-31D
AWOS 122.55 (Pvt)	
Toronto Center App/Dep Con 124.025	
Bar River, ON (CPF2)	L-31C
Toronto Center App/Dep Con 132.65	
Bathurst, NB (CZBF)	L-32J
Moncton Center App/Dep Con 134.25	
Boundary Bay, BC (CZBB)	H-1B, L-1E
ATIS 125.5 (1500-Ø700Z‡)	
Vancouver App/Dep Con 132.3 363.8	
Tower 118.1 (Inner) 127.6 (Outer) (1500-Ø700Z‡) Gnd Con 124.3	
MF 118.1 (Ø700-1500Z‡ to 2000'. Vancouver Trml 125.2 above 2000'. Shape irregular to 2500'.)	
Brampton, ON (CNC3)	L-31D
Toronto Trml App/Dep Con 119.3 253.1	
Brandon Muni, MB (CYBR)	H-2H
Winnipeg Center App/Dep Con 132.25 285.4	
MF 122.1 (5 NM to 4000')	
Brantford, ON (CYFD)	L-31D
Toronto Trml App/Dep Con 128.27	
Brockville-Thousand Islands Rgnl Tackaberry, ON (CNL3)	L-32G
Montreal Center App/Dep Con 134.675	
Bromont, QC (CZBM)	L-32G
Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')	
Burlington Airpark, ON (CZBA)	L-31D
Toronto Center App/Dep Con 119.3 253.1	
Castlegar, BC (CYCG)	H-1C
Vancouver Center App/Dep Con 134.2 227.3	
MF 122.1 (5 NM to 6500')	
Centralia/James T. Fld Muni, ON (CYCE)	H-10G, 11B, L-31D
Toronto Center App/Dep Con 135.30	
Charlottetown, PE (CYYG)	H-11E, L-32J
Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')	
Chatham-Kent, ON (CNZ3)	H-10G, L-30G
Cleveland Center App/Dep Con 132.25	

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H-11B, L-31D
Cornwall Rgnl, ON (CYCC) Boston Center App/Dep Con 135.25 377.1	L-32G
Cranbrook/Canadian Rockies Intl, BC (CYXC) Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')	H-1C
Debert, NS (CCQ3) Halifax Trml App/Dep Con 119.2	H-11E, L-32J
Digby, NS (CYID) Moncton Center App/Dep Con 123.9	L-32J
Downsview, ON (CYZD) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 MF 126.2 (1300-2300Z±, 3 NM to 1700')	H-11B, L-31E
Drummondville, QC (CSC3) Montreal Center App/Dep Con 132.35	L-32H
Earlton (Timiskaming Rgnl), ON (CYXR) MF 122.0 (5 NM to 3800') AWOS 128.6	H-11B
Elliot Lake Muni, ON (CYEL) Toronto Center App/Dep Con 135.4	L-31C
Fort Frances Muni, ON (CYAG) Minneapolis Center App/Dep Con 120.9	L-14H
Fredericton Intl, NB (CYFC) ATIS 127.55 Moncton Center App/Dep Con 124.3 135.5 270.8 Tower 119.0 (1200-2000Z, DT 1100-1900Z) Gnd Con 121.7 (Ltd hrs) MF 119.0 (2000-1200Z, DT 1900-1100Z 5 NM to 3500')	H-11E, L-32I
Goderich, ON (CYGD) Toronto Center App/Dep 135.3 266.3	H-11B, L-31D
Greenwood, NS (CYZX) ATIS 128.85 244.3 (1100-0000Z±) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Cinc Del 128.05 283.9	H-11E, L-32J
Grimsby Air Park, ON (CNZ8) Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L-31E
Halifax/Shearwater, NS (CYAW) ATIS 129.175 (Ltd hrs) App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs) Gnd Con 121.7 250.1	H-11E, L-32J
Halifax/Stanfield Intl, NS (CYHZ) ATIS 121.0 Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 225.2 363.8 Tower 118.4 236.6 Gnd Con 121.9 275.8 Cinc Del 123.95 Apron Advisory 122.125	H-11E, L-32J
Hamilton, ON (CYHM) ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H-10H, 11B, L-11B
Kingston, ON (CYGK) Montreal Center App/Dep Con 135.05 398.4 (0400-1115Z±) MF 122.5 (1115-0400Z± 5 NM to 3300')	H-11C, L-31E, 32F
Kitchener/Waterloo, ON (CYKF) ATIS 125.1 (1200-0400Z±) Toronto Trml App/Dep Con 128.275 Waterloo Tower 126.0 118.55 (1200-0400Z±) Gnd Con 121.8 MF 126.0 (0400-1200Z± 5 NM to 4000')	H-11B, L-31D
Lachute, QC (CSE4) Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L-32G
La Tuque, QC (CYLQ) Montreal Center App/Dep Con 134.5	H-11C
Langley, BC (CYNJ) ATIS 124.5 (1630-0230Z, DT 1530-0330Z) Victoria Trml 132.7 290.8 Tower 119.0 (1630-0230Z, DT 1530-0330Z) Gnd Con 121.9 MF 119.0 (0230-1630Z, DT 0330-1530Z 3 NM to 1900')	L-1E

FACILITY NAME	CHART & PANEL
Leamington, ON (CLM2) Cleveland Center App/Dep Con 132.45	L-30F
Lethbridge, AB (CYQL) ATIS 124.4 (1300-0545Z‡) Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000')	H-1D
Lindsay, ON (CNF4) Toronto Center App/Dep 134.25	L-31E, L-32F
Liverpool/South Shore Rgnl, NS (CYAU) Moncton Center App/Dep Con 123.9	L-32J
London, ON (CYXU) ATIS 127.8 (1120-0345Z‡) Toronto Center App/Dep 135.3 135.625 Tower 119.4 125.65 (1120-0345Z‡) Gnd Con 121.9 MF 119.4 (0345-1120Z‡ 5 NM to 3000')	H-10G, 11B, L-30G, 31D
Manitowaning/Manitoulin East Muni, ON (CYEM) Toronto Center App/Dep 135.4 260.9	L-31C
Maniwaki, QC (CYMW) Montreal Center App/Dep Con 126.57	L-32G
Mascouche, QC (CSK3) MF 122.35 (5 NM to 2500'. No gnd station. Excluding the portion S of the N shore of Riviere des Milles-Iles and 1 NM around Lac Agile Mascouche arpt.)	L-32G
Medicine Hat, AB (CYXH) AWOS 124.875 (0345-1245Z‡) MF 122.2 (1245-0345Z‡ 5 NM to 5400')	H-1D
Midland/Huronina, ON (CYEE) Toronto Center App/Dep 124.025	L-31D
Miramichi, NB (CYCH) Moncton Center App/Dep Con 123.7	H-11E, L-32J
Moncton/Greater Moncton Intl, NB (CYQM) ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H-11E, L-32J
Mont-Laurier, QC (CSD4) Montreal Center App/Dep Con 126.57	L-32G
Montreal Intl (Mirabel), QC (CYMX) ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 MF 119.1 (7 NM shape irregular to 2000') VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE-S-SW) 124.65 268.3 (W-NW-NE) VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/St-Hubert, QC (CYHU) ATIS 124.9 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) Gnd Con 126.4 MF 118.4 (Apr-Oct 0500-1045Z‡, Nov-Mar 0400-1045Z 5 NM shape irregular to 2500') VFR Advisory 134.15	H-11C, L-32G
Muskoka, ON (CYQA) AWOS 124.575 MF 122.3 (5 NM to 3900')	H-11B, L-31D
Nanaimo, BC (CYCD) Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330-0530Z‡ (5 NM to 2500')	H-1B, L-1E
North Bay, ON (CYYB) ATIS 124.9 (1130-0300Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130-0330Z‡ 7 NM to 5000')	H-11B, L31D
Oshawa, ON (CYOO) ATIS 125.675 (1130-0330Z‡) Toronto Trml App Con 133.4 Tower 120.1 (1130-0330Z‡) Gnd Con 118.4 Toronto Trml Dep Con 133.4 MF 120.1 (0330-1130Z‡ 5 NM to 3000')	L-31E

FACILITY NAME	CHART & PANEL
Ottawa/Carp, ON (CYRP) ATIS 121.15 Ottawa Trml App/Dep Con 128.175 252.5	L-31E, 32F
Ottawa/Gatineau, QC (CYND) Ottawa Trml App/Dep Con 127.7 128.175 252.5 MF 122.3 (5 NM shape irregular to 2500') VFR Advisory Ottawa Trml 127.7	H-11C, L-32G
Ottawa/MacDonald-Cartier Intl, ON (CYOW) ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 120.1 341.3 Gnd Con 121.9 Clnc Del 119.4 Ottawa Dep Con 128.175	L-11C
Owen Sound/Billy Bishop Rgnl, ON (CYOS) Toronto Center App/Dep 132.575 290.6	L-31D
Pelee Island, ON (CYPT) Cleveland Center App/Dep Con 126.35 360.0	L-30F
Pembroke, ON (CYTA) Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon-Fri 1300-2130Z†, OT PPR)	H-11C, L-31E, 32F
Penticton, BC (CYYF) Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100')	H-1B
Peterborough, ON (CYPQ) AWOS 126.925 Toronto Center App/Dep 134.25	H-11B, L-31E, 32F
Pincher Creek, AB (CZPC) Edmonton Center App/Dep Con 132.75 265.2	H-1D
Pitt Meadows, BC (CYPK) ATIS 125.0 (1500-0700Z†) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500-0700Z†) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700-1500Z†) (3NM to 2500')	L-1E
Quebec/Jean Lesage Intl, QC (CYQB) ATIS 134.6 AWOS 122.025 (Pvt) Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 (185.65 Quebec Twr VFR acft at or below 3000') Tower 118.65 236.6 Gnd Con 121.9 250.0	H-11D, L-32H
Riviere Du Loup, QC (CYRI) AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H-11D
Rouyn Noranda, QC (CYUY) Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000')	H-11B
Saint John, NB (CYSJ) Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400')	H-11E, L-32J
Sarnia (Chris Hadfield), ON (CYZR) Toronto Center 134.375	H-10G, 11B, L-30F
Sault Ste Marie, ON (CYAM) ATIS 133.05 (1300-0100Z†) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300-0100Z†) Gnd Con 121.7 MF 118.8 (0100-1300Z† 5 NM irregular shape to 3000')	H-2K, L-31B
Sherbrooke, QC (CYAM) AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800')	H-11D, L-32H
South Renfrew Muni, ON (CNP3) Montreal Center App/Dep 124.275	L-31E, 32F
Southport, MB (CYPG) ATIS 120.85 (Mon-Fri 1400-2300Z† except holidays) Tower 126.2 384.2 (Mon-Fri 1400-2300Z† except holidays) Gnd Con 121.7 275.8	H-2H

FACILITY NAME	CHART & PANEL
Springwater Barrie Airpark, ON (CNA3) Toronto Center App/Dep Con 124.025	L-31D
St. Catharines/Niagara District, ON (CYSN) ATIS 128.525 (1215-0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215-0200Z‡ 5 NM to 3300')	H-10H, 11B, L-31E
St. Frederic, QC (CSZ4) Montreal Center App/Dep Con 135.025 270.9	L-32H
St. Georges, QC (CYSG) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900' ASL)	H-32H, L-11D
St. Jean, QC (CYJN) Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr-Oct 1230-0230Z‡ Nov-Mar 1300-0200Z‡) Gnd Con 121.7	L-32G
Sudbury, ON (CYSB) ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000')	H-31B, 10G, L-31D
Summerside, PE (CYSU) AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H-11E, L-32J
Thunder Bay, ON (CYQT) ATIS 128.8 (1100-0400Z‡) Winnipeg Center App/Dep Con 132.125 (0400-1100Z‡) Tower 118.1 (1100-0400Z‡) Gnd Con 121.9 App/Dep 119.2 MF 118.1 (0400-1100Z‡ 5 NM to 4000')	H-2J, L-14J
Timmins, ON (CYTS) ATIS 124.95 (1000-0500Z‡) Toronto Center App/Dep Con 128.3 226.3 MF 122.3 (5 NM to 4000')	H-11B
Toronto/Buttonville Muni, ON (CYKZ) ATIS 127.1 (1200-0400Z‡) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 Tower 124.8 119.9 (1200-0400Z‡) Gnd Con 121.8 MF 124.8 (0400-1200Z‡ No gnd station. 5 NM shape irregular to below 2500')	L-31E
Toronto/City Centre, ON (CYTZ) ATIS 133.6 (1130-0400Z‡) App Con 133.4 Dep Con 133.4 Tower 118.2 119.2 (1130-0400Z‡) Gnd Con 121.7	L-31E
Toronto/Lester B Pearson Intl, ON (CYYZ) ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9 Clnc Del 121.3 (1200-0400Z‡) VFR Advisory 119.3 133.4	H-11B, L-31D
Trenton, ON (CYTR) ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H-11C, L-31E, 32F
Trenton/Mountain View, ON (CPZ3) Trenton Mil Advisory 268.0	H-11C, L-31E, 32F
Trois-Rivieres, QC (CYRQ) Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200')	H-11C, L-32H
Val-d'Or, QC (CYVO) Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030-0325Z‡ 5 NM to 4000')	H-11B
Vancouver Intl, BC (CYVR) ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clnc Del 121.4	H-1B, L-1E

FACILITY NAME	CHART & PANEL
Victoria Intl, BC (CYYJ) ATIS 118.8 (1400-0800Z‡) App Con 125.95 308.4 Dep Con 133.85 308.4 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400-0800Z‡ OT ctc Kamloops 119.7) Cinc Del 126.4 (1400-0800Z‡)	H-1B, L-1E
Victoriaville, QC (CSR3) Montreal Center App Con 132.35	L-32H
Waterville/Kings Co Muni, NS (CCW3) Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L-32J
Warton, ON (CYVY) Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700')	H-11B, L-31D
Windsor, ON (CYQG) ATIS 134.5 (1130-0330Z‡) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130-0330Z‡) Gnd Con 121.7 MF 124.7 (0330-1130Z‡ 6 NM irregular shape to below 3000') VFR Advisory Detroit App Con 134.3	H-10G, L-8J
Yarmouth, NS (CYQI) Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100')	H-11E, L-32I

MEXICO

FACILITY NAME	CHART & PANEL
Abraham Gonzalez Intl (MMCS) Juarez App Con 119.9 Juarez Tower 118.9	H-4K, L-6F
Del Norte Intl (MMAN) ATIS 127.55 (1300-0300Z‡) Monterrey App 119.75 120.4 Tower 118.6	H-7B, L-20G
Durango Intl (MMDO) ATIS 132.1 Tower 118.1 Durango Info 122.3	H-7A
General Abelardo L Rodriguez Intl (MMTJ) ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Cinc Del 122.35 Tijuana Info 132.1	H-4H, L-4H
General Lucio Blanco Intl (MMRX) Reynosa App Con 118.8 Reynosa Tower 118.8	H-7B, L-20H
General Mariano Escobedo Intl (MMMY) ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H-7B, L-20G
General R Fierro Villalobos Intl (MMCW) ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L-6I
General Rodolfo Sanchez Taboada Intl (MMML) ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H-4H, L-4J, 5A
General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H-7C, L-21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H-7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H-7B, L-20G
Torreón Intl (MMTC) App Con 119.6 Tower 118.5	H-7A

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In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.


NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

GENERAL INFORMATION

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:





1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., , , .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "0" beside the name.

A star (*) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., *

To activate lights use frequency indicated in the communication section of the chart with a  or the appropriate lighting system identification e.g., UNICOM 122.8 , , .

<u>KEY MIKE</u>	<u>FUNCTION</u>
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

FAA procedure amendment number  Amdt 11A 99365  Date of latest change
 Orig 00365 

The Chart Date identifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

MISCELLANEOUS

- ★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

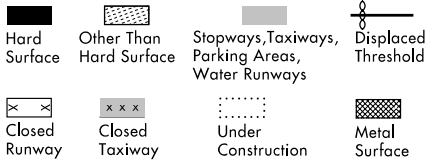
09071

LEGEND

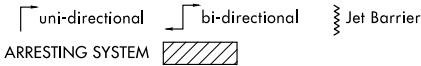
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM

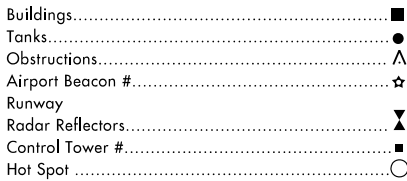
Runways



ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



REFERENCE FEATURES



When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g.,

RWY 14-32 S75, T185, ST175, TT325

PCN 80 F/D/X/U

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures landing point.....

Runway Threshold elevation.....THRE 123

Runway TDZ elevation.....TDZE 123

Runway Slope.....0.3% DOWN

(shown when runway slope is greater than or equal to 0.3%)

NOTE:

Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

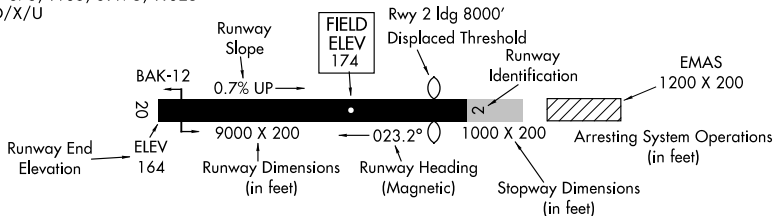
True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or 1/2 minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ± 600 feet unless otherwise noted on the chart.

NOTE:

All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)



Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

LEGEND

HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary. A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HOT¹", "HOT²", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

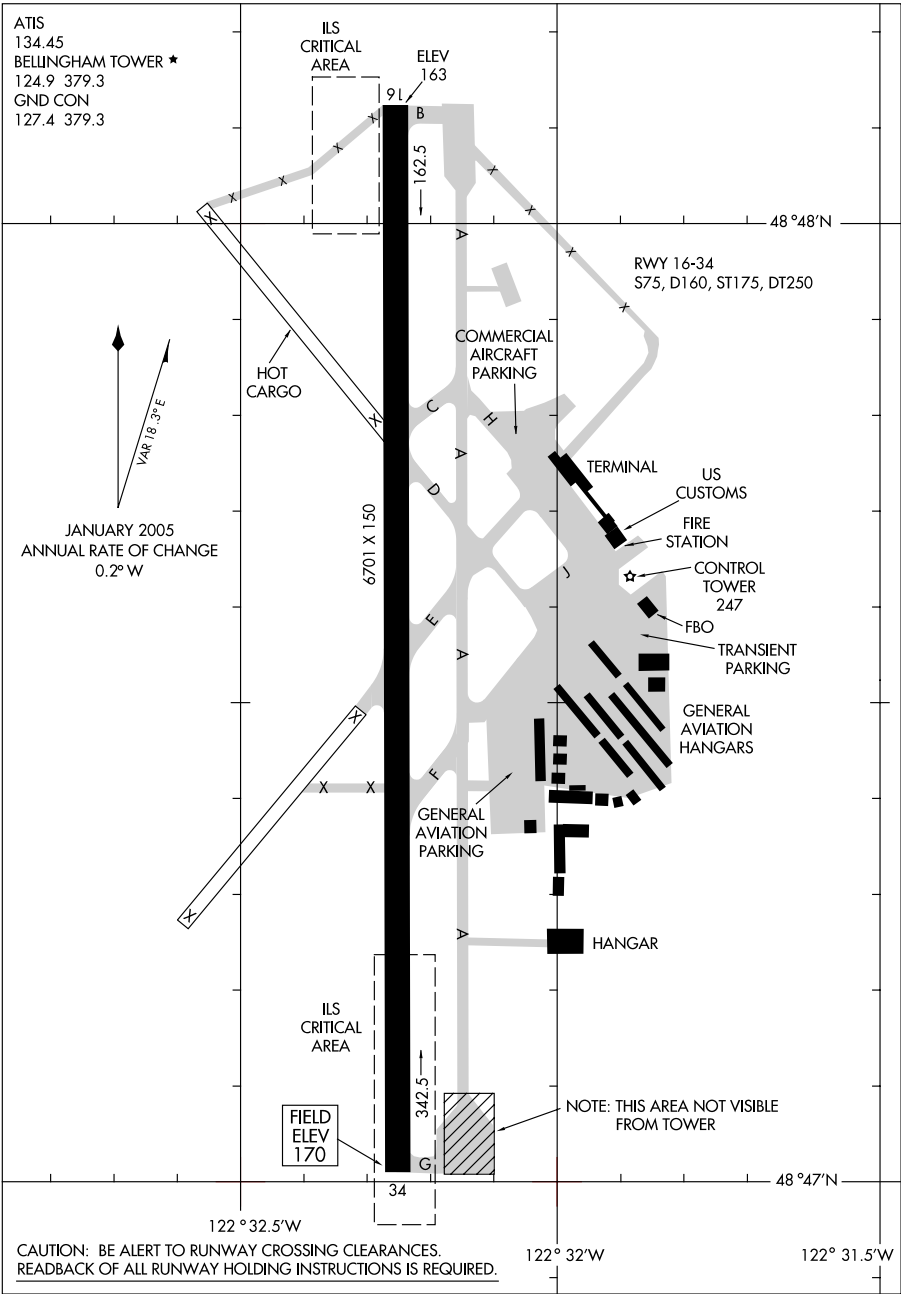
CITY/AIRPORT	HOT SPOT	DESCRIPTION
IDAHO		
IDAHO FALLS IDAHO FALLS RGNL (IDA)	HOT ¹	Pilots should use caution and look carefully for runway hold line when using Twy C. Rwy 17–35 does not have runway edge markings and can be mistaken for a twy.
	HOT ²	Aircraft departing Rwy 20 often miss left turn on A–1 and taxi past A–1 entrance. Do not mistake Rwy 20 such hold line on Twy A for entrance to Rwy 20.
	HOT ³	Do not cross hold line for Rwy 17 without authorization.
LEWISTON LEWISTON-NEZ PERCE CO (LWS)	HOT ¹	Twy C and Twy G intersection close proximity to Rwy 12–30.
	HOT ²	Twy G between Rwy 8–26 and Rwy 30 thld. Short distance between rwys.
MONTANA		
MISSOULA MISSOULA INTL (MSO)	HOT ¹	Intersection of Twy A and Twy F. Critical turn for eastbound ramp access.
OREGON		
PORTLAND PORTLAND INTL (PDX)	HOT ¹	Limited wing-tip clearance at taxiway convergence point. Pilots taxiing eastbound on taxiway B should hold at the taxiway holding position marking when directed by ATC.
WASHINGTON		
EVERETT SNOHOMISH COUNTY (PAINE FIELD) PAE	HOT ¹	Intersection of Twy D1, Twy A5, and Rwy 11–29, Rwy in close proximity to ramp areas.
	HOT ²	Rwy 29 thld in close proximity to ramp areas.
	HOT ³	Twy A between Twy A8 and Twy A9 not visible from ATCT.
SEATTLE BOEING FIELD/KING COUNTY INTL (BFI)	HOT ¹	Twy Z restricted access area.
	HOT ²	Rwy 13R–31L and Twy A9. Wrong rwy departure risk.
SEATTLE SEATTLE-TACOMA INTL (SEA)	HOT ¹	Aircraft landing Rwy 34C and exiting Twy H who turn right on Twy J must clear the Rwy 34C hold bar completely, while using vigilance not to cross the hold bar for Rwy 34R (34C–34R hold bar separation distance 189 feet).

09127

AIRPORT DIAGRAM

AL-45 (FAA)

BELLINGHAM INTL (BLI)
BELLINGHAM, WASHINGTON



AIRPORT DIAGRAM

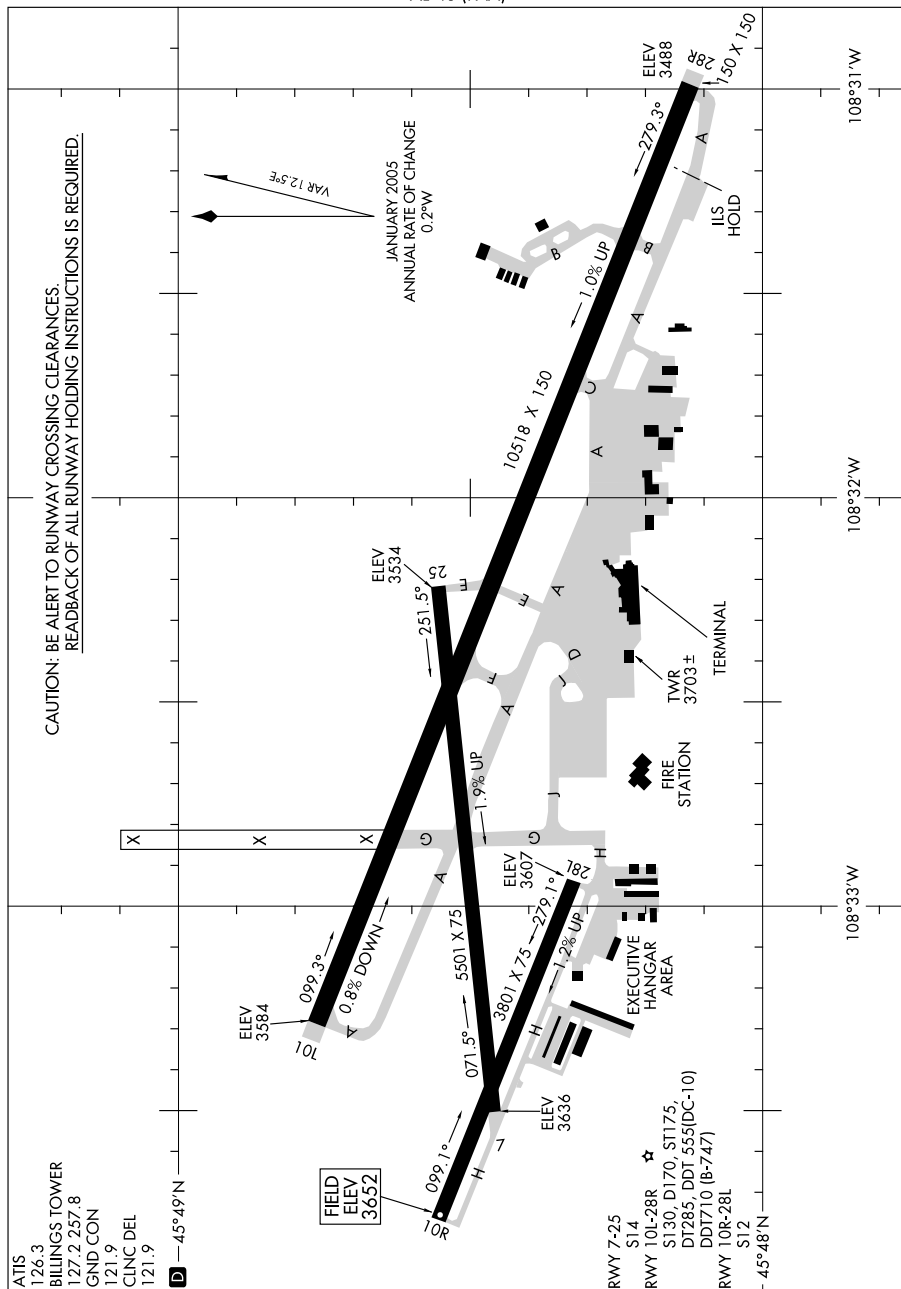
09127

BELLINGHAM, WASHINGTON
BELLINGHAM INTL (BLI)

09351

AIRPORT DIAGRAM

AL-48 (FAA)

BILLINGS LOGAN INTL (BIL)
BILLINGS, MONTANA

AIRPORT DIAGRAM

09351

BILLINGS, MONTANA
BILLINGS LOGAN INTL (BIL)

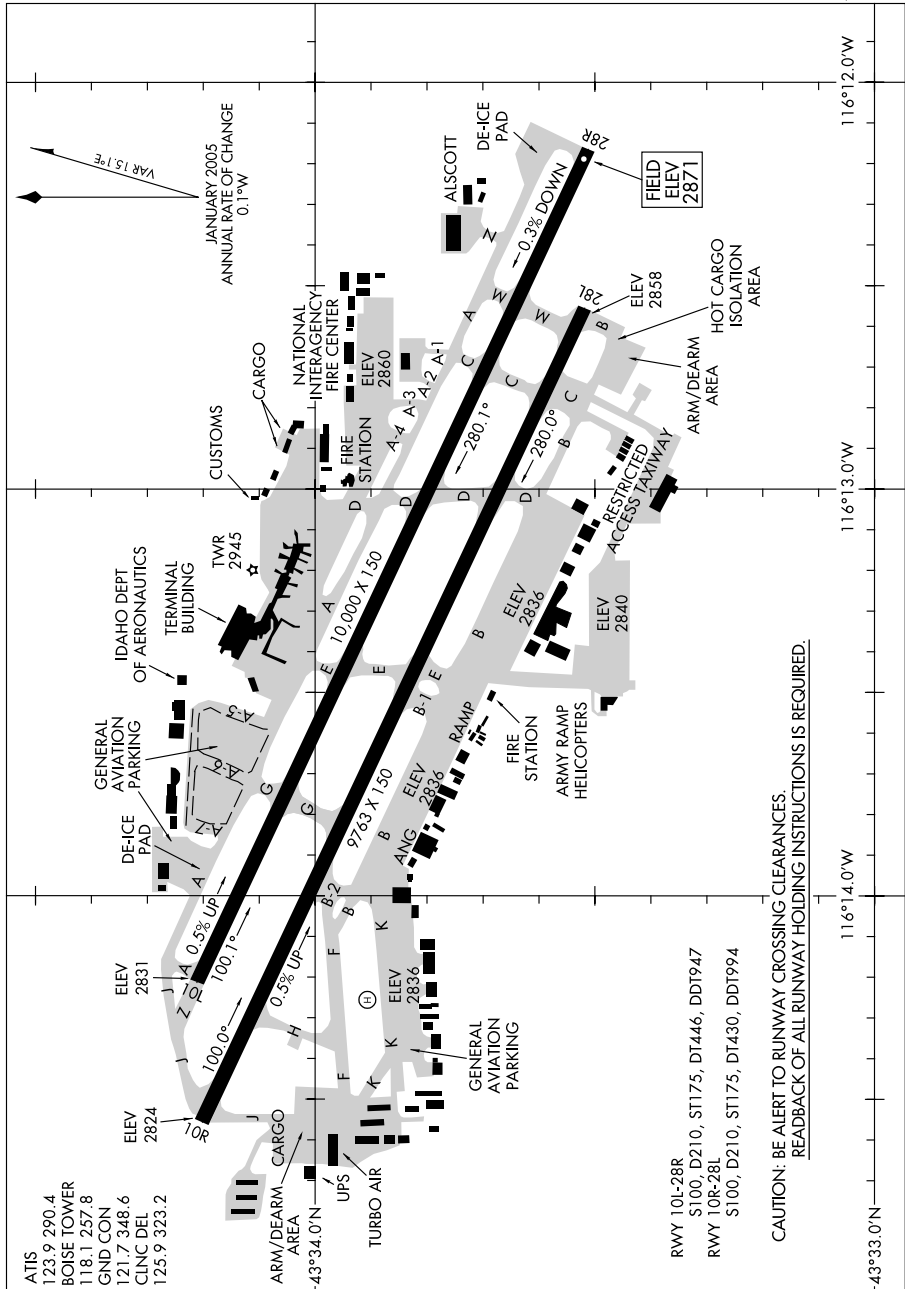
09239

AIRPORT DIAGRAM

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

AL-57 (FAA)

BOISE, IDAHO



AIRPORT DIAGRAM

BOISE, IDAHO

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

09239

NW, 17 DEC 2009 to 11 FEB 2010

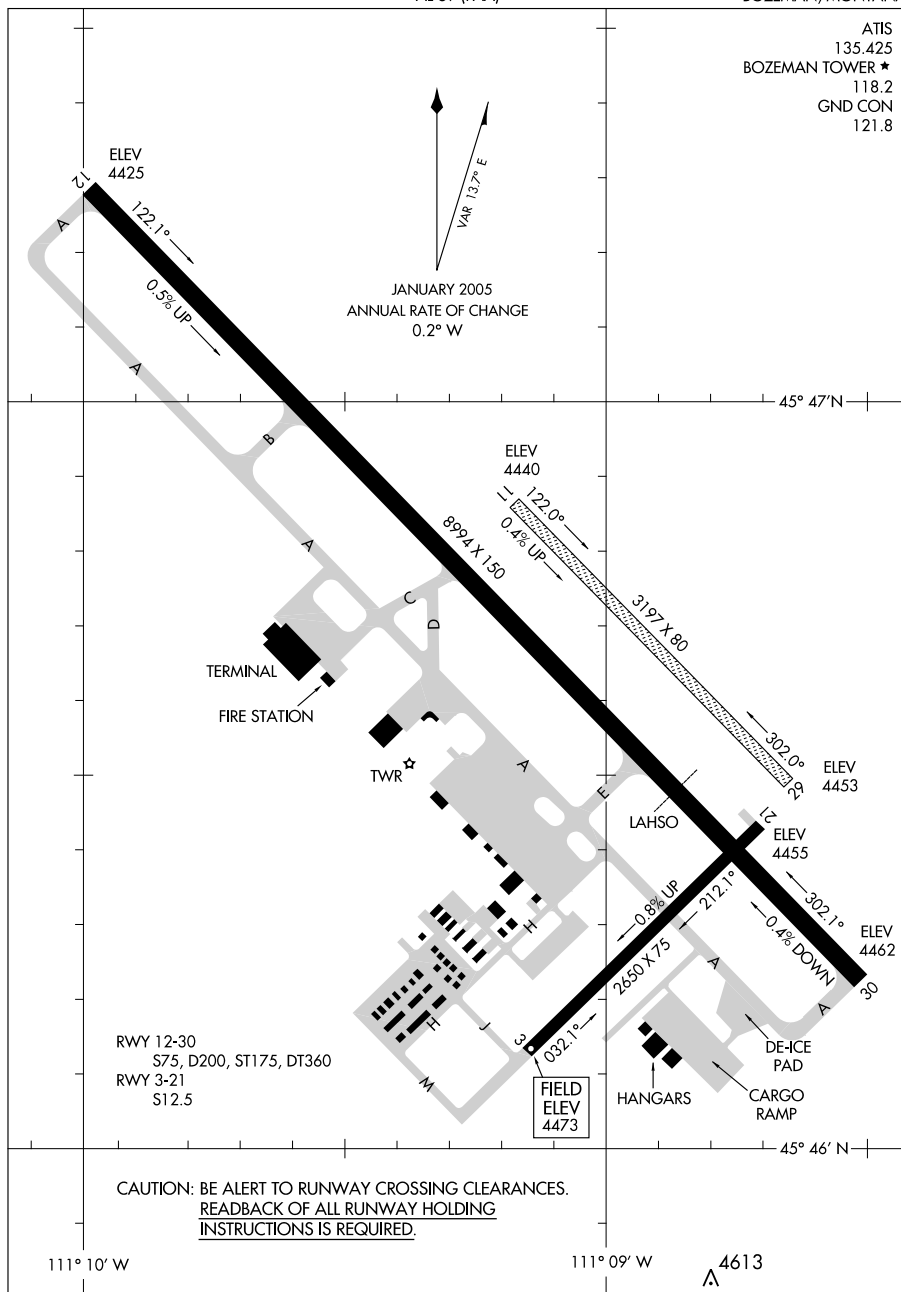
09239

AIRPORT DIAGRAM

AL-59 (FAA)

BOZEMAN/GALLATIN FIELD (BZN)

BOZEMAN, MONTANA



AIRPORT DIAGRAM

09239

BOZEMAN, MONTANA

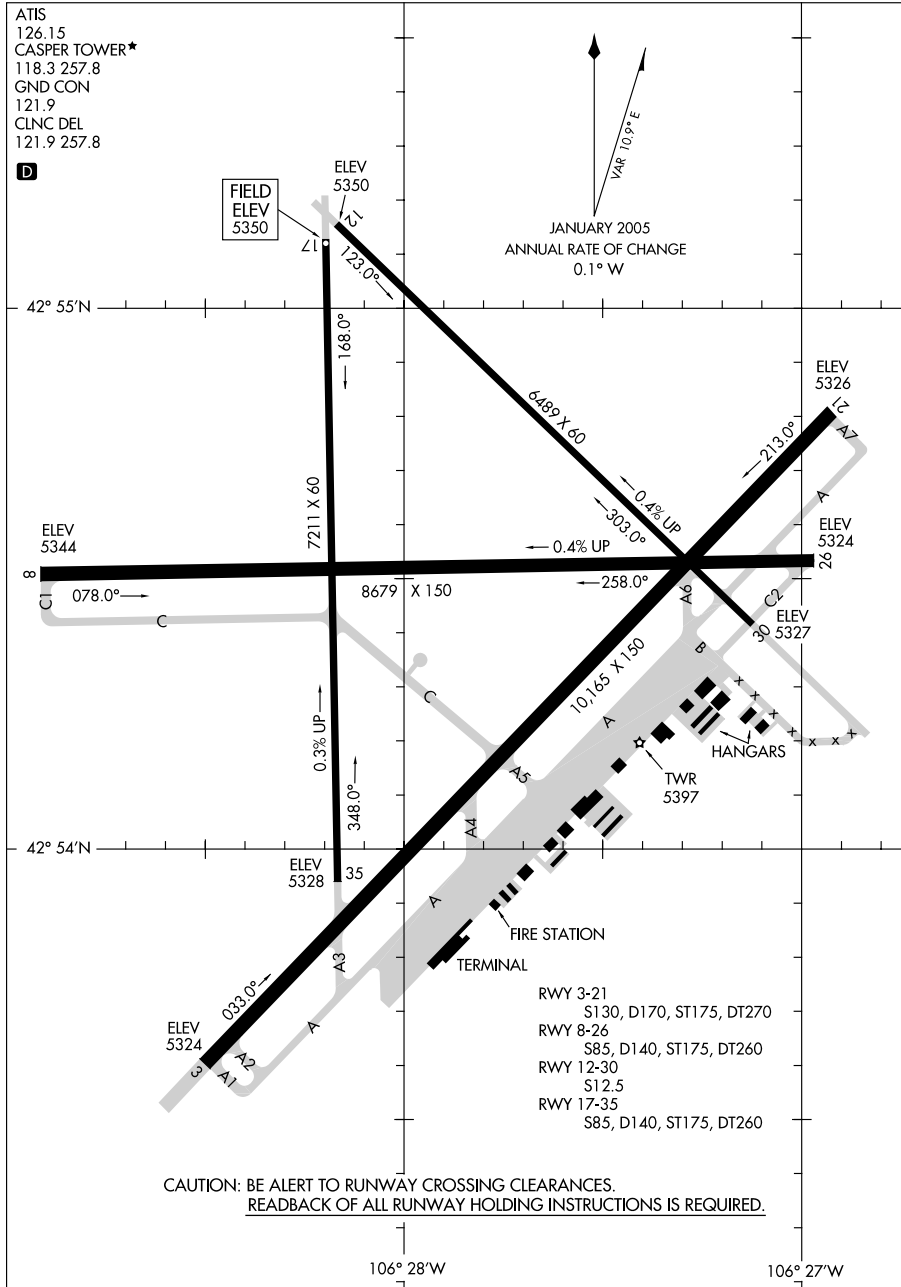
BOZEMAN/GALLATIN FIELD (BZN)

09351

AIRPORT DIAGRAM

CASPER/NATRONA COUNTY INTL (CPR)
CASPER, WYOMING

AL-72 (FAA)



AIRPORT DIAGRAM

09351

CASPER, WYOMING
CASPER/NATRONA COUNTY INTL (CPR)

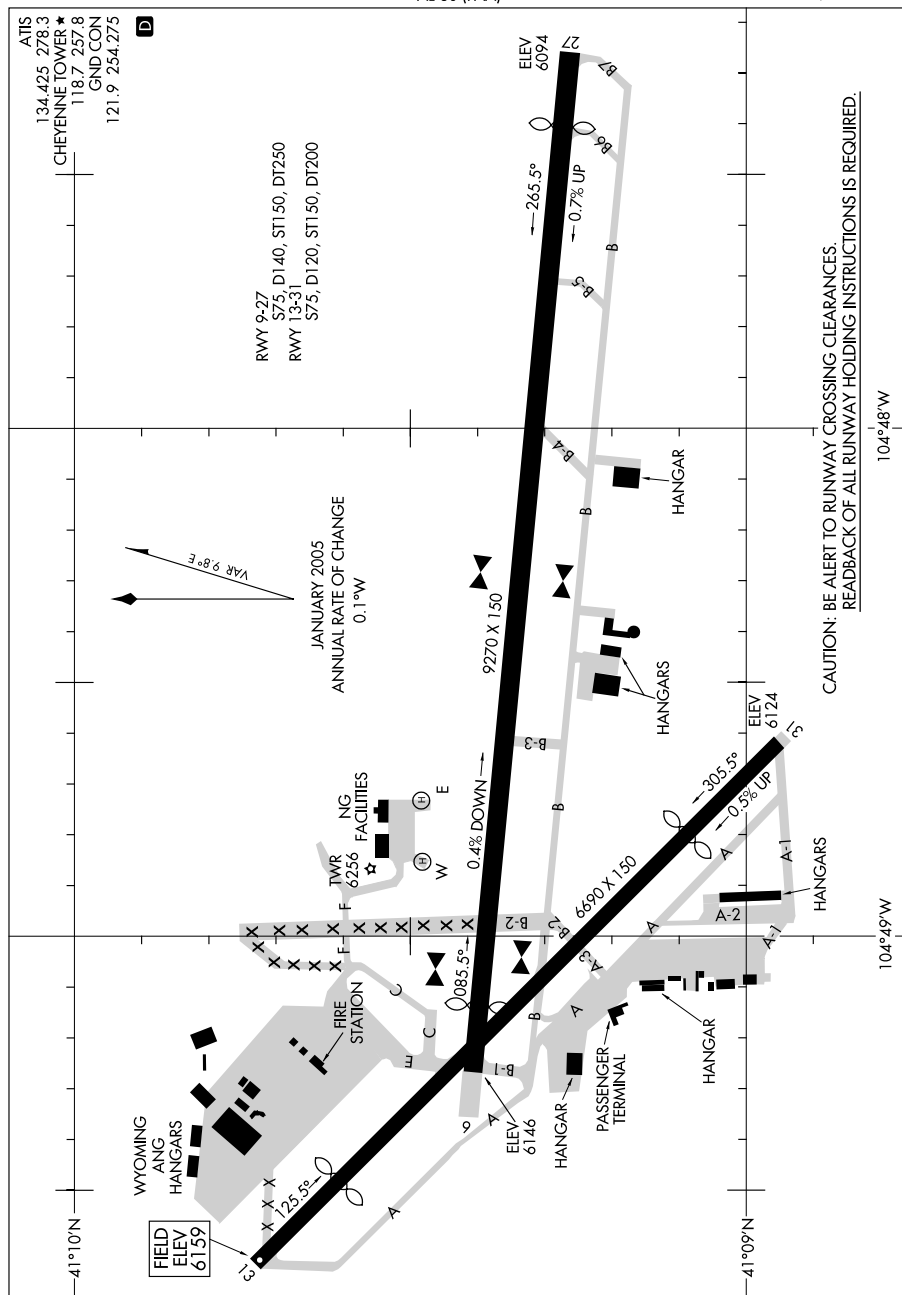
09015

AIRPORT DIAGRAM

CHEYENNE RGNL/JERRY OLSON FIELD (C'Y'S)

AL-80 (FAA)

CHEYENNE, WYOMING



AIRPORT DIAGRAM

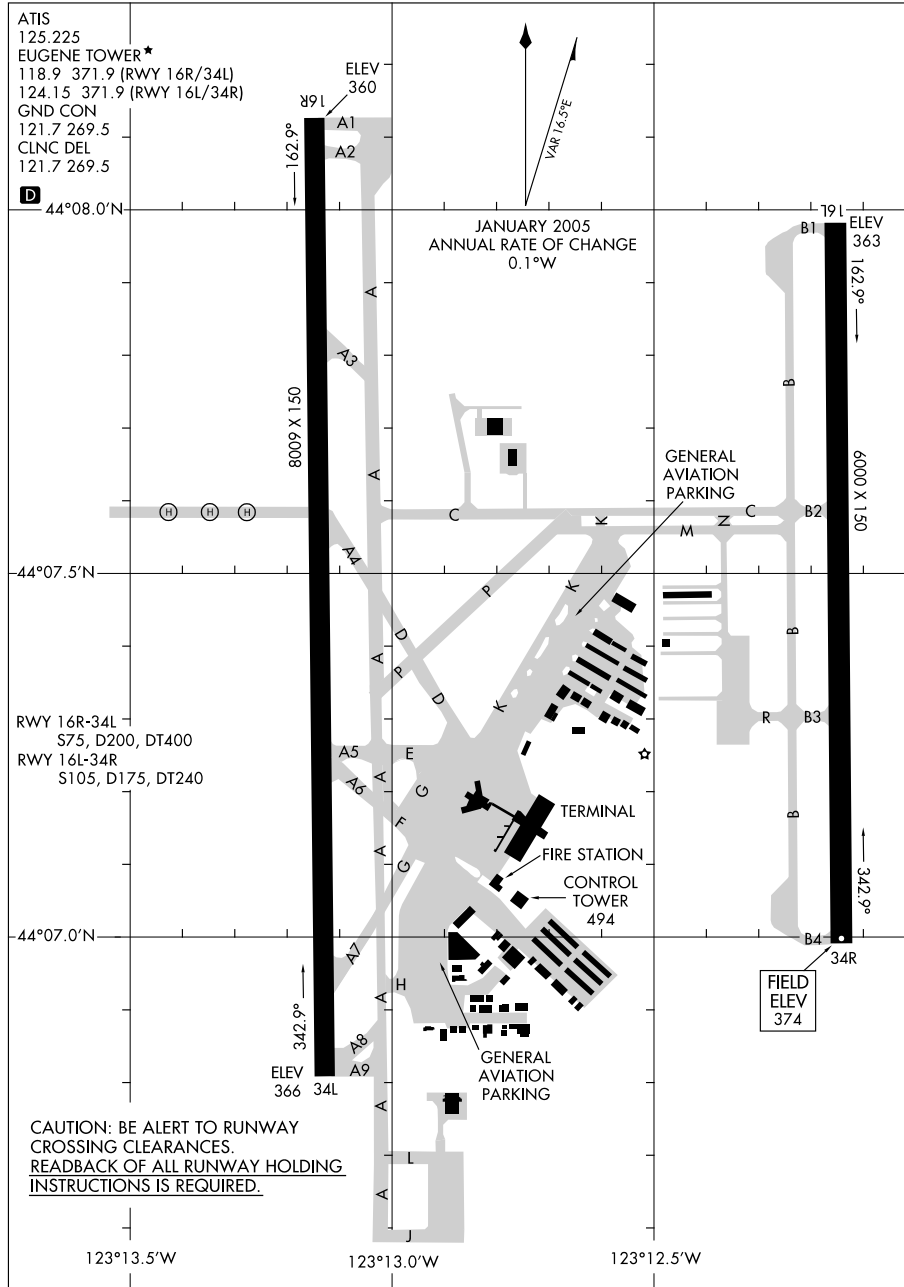
CHEYENNE RGNL/JERRY OLSON FIELD (C'Y'S)

09015

09351

AIRPORT DIAGRAM

AL-140 (FAA)

EUGENE/MAHLON SWEET FIELD (EUG)
EUGENE, OREGON

AIRPORT DIAGRAM

EUGENE, OREGON
EUGENE/MAHLON SWEET FIELD (EUG)

09351

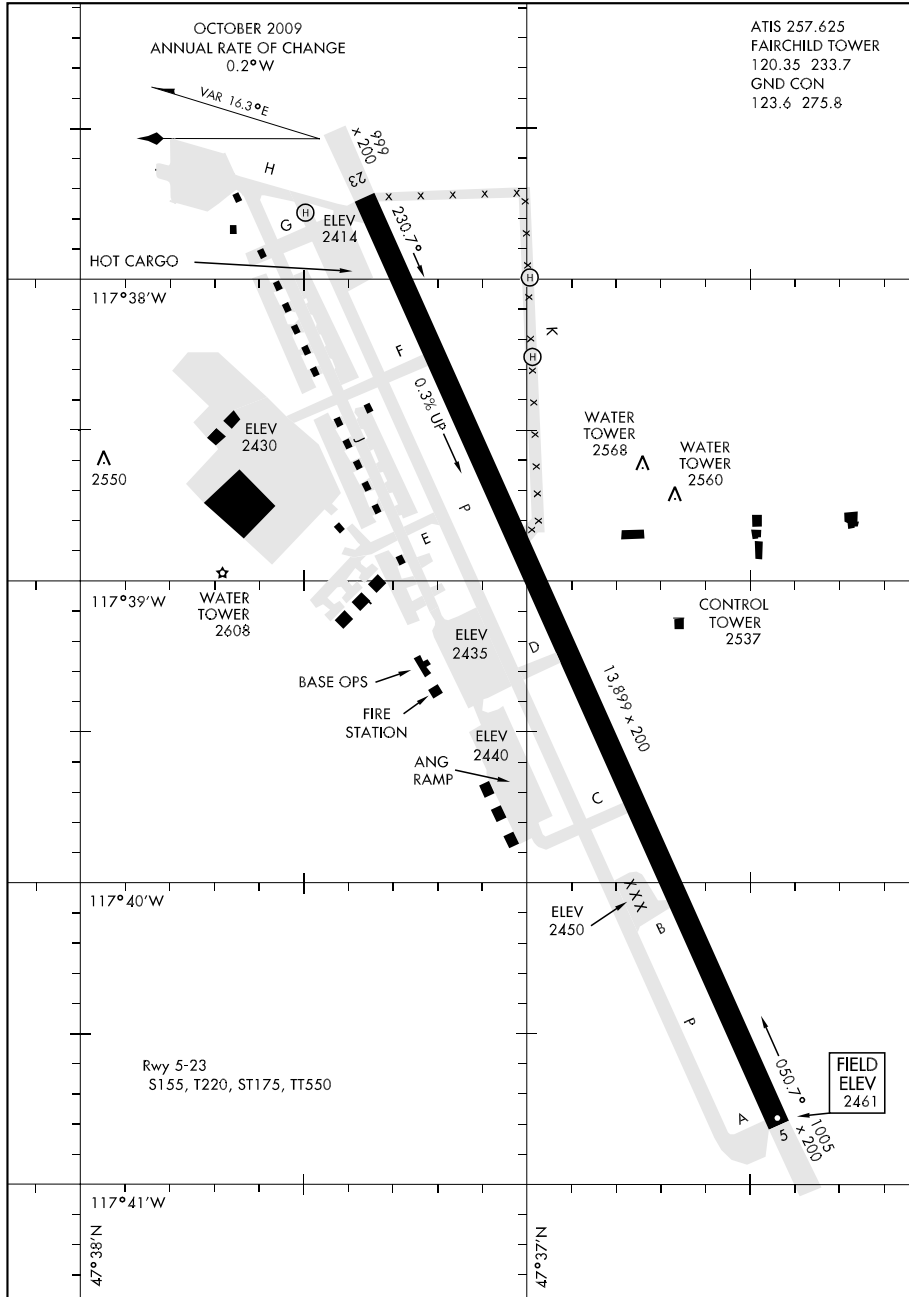
09295

AIRPORT DIAGRAM

AFD-553 [USAF]

FAIRCHILD AFB (KSKA)

SPOKANE, WASHINGTON

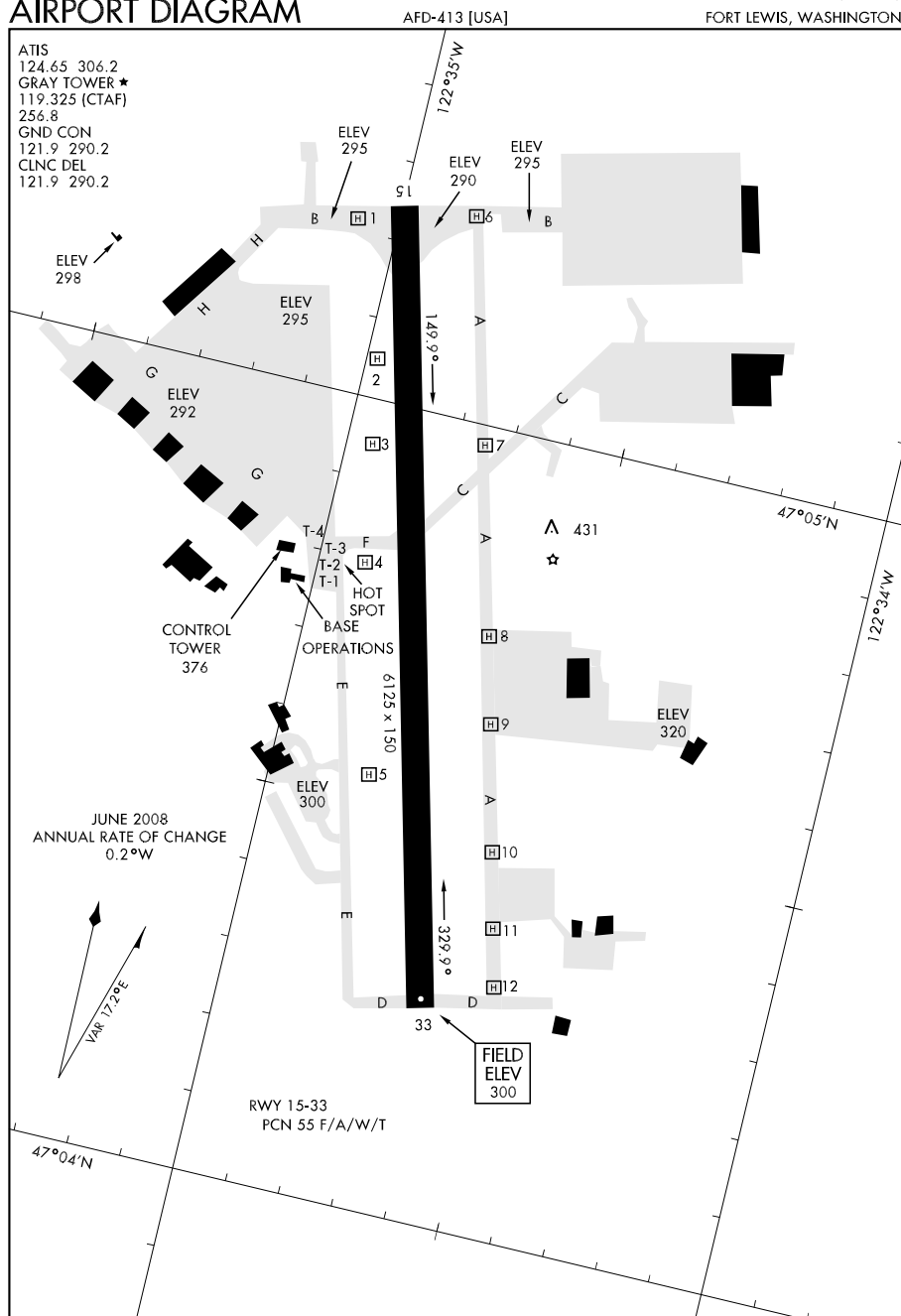


AIRPORT DIAGRAM

SPOKANE, WASHINGTON
FAIRCHILD AFB (KSKA)

08157

AIRPORT DIAGRAM

GRAY AAF (KGRF)
FORT LEWIS, WASHINGTON

AIRPORT DIAGRAM

FORT LEWIS, WASHINGTON
GRAY AAF (KGRF)

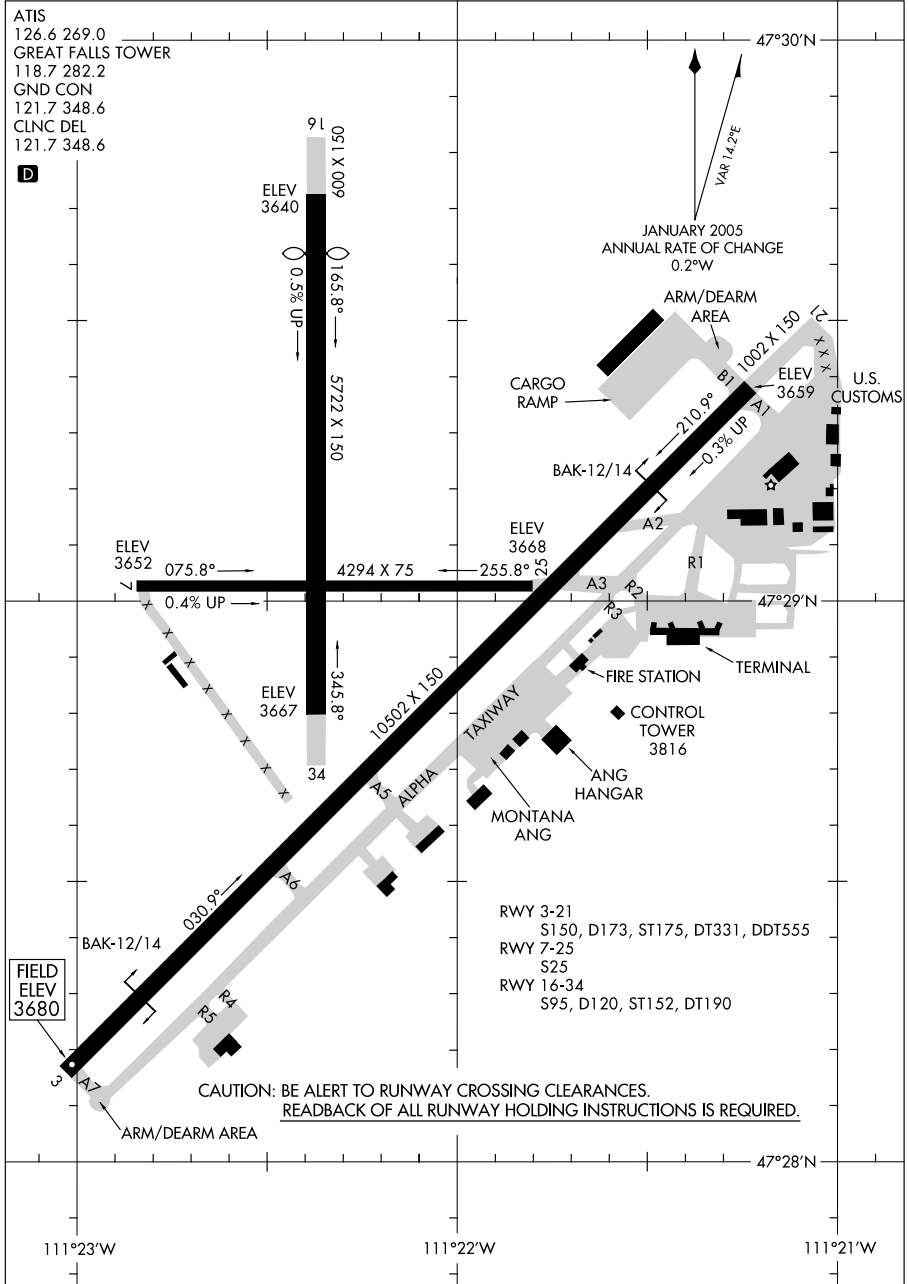
09015

AIRPORT DIAGRAM

AL-177 (FAA)

GREAT FALLS INTL (GTF')

GREAT FALLS, MONTANA



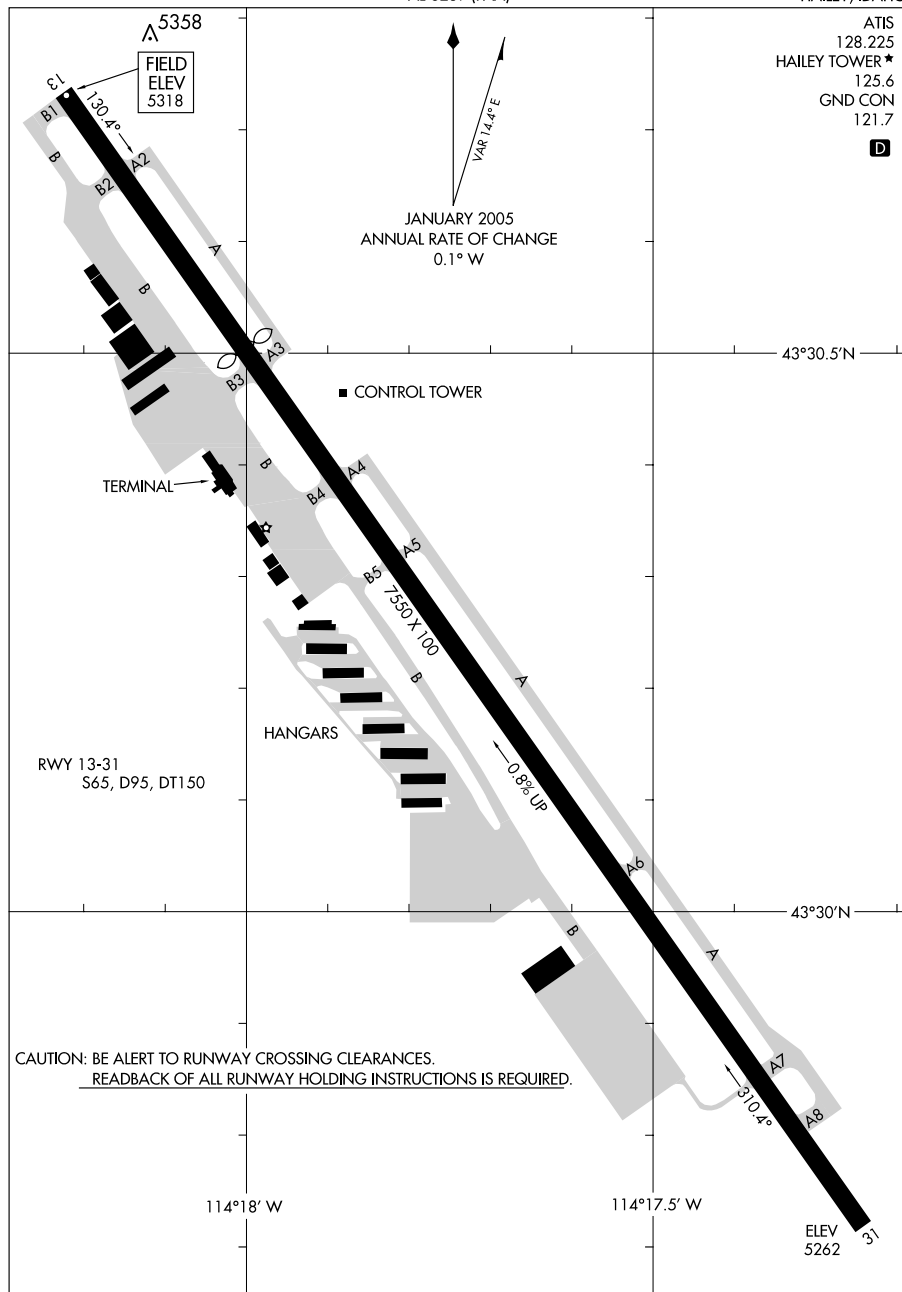
AIRPORT DIAGRAM

09015

GREAT FALLS, MONTANA
GREAT FALLS INTL (GTF')

09015

AIRPORT DIAGRAM

HAILEY/ FRIEDMAN MEMORIAL (SUN)
HAILEY, IDAHO

AIRPORT DIAGRAM

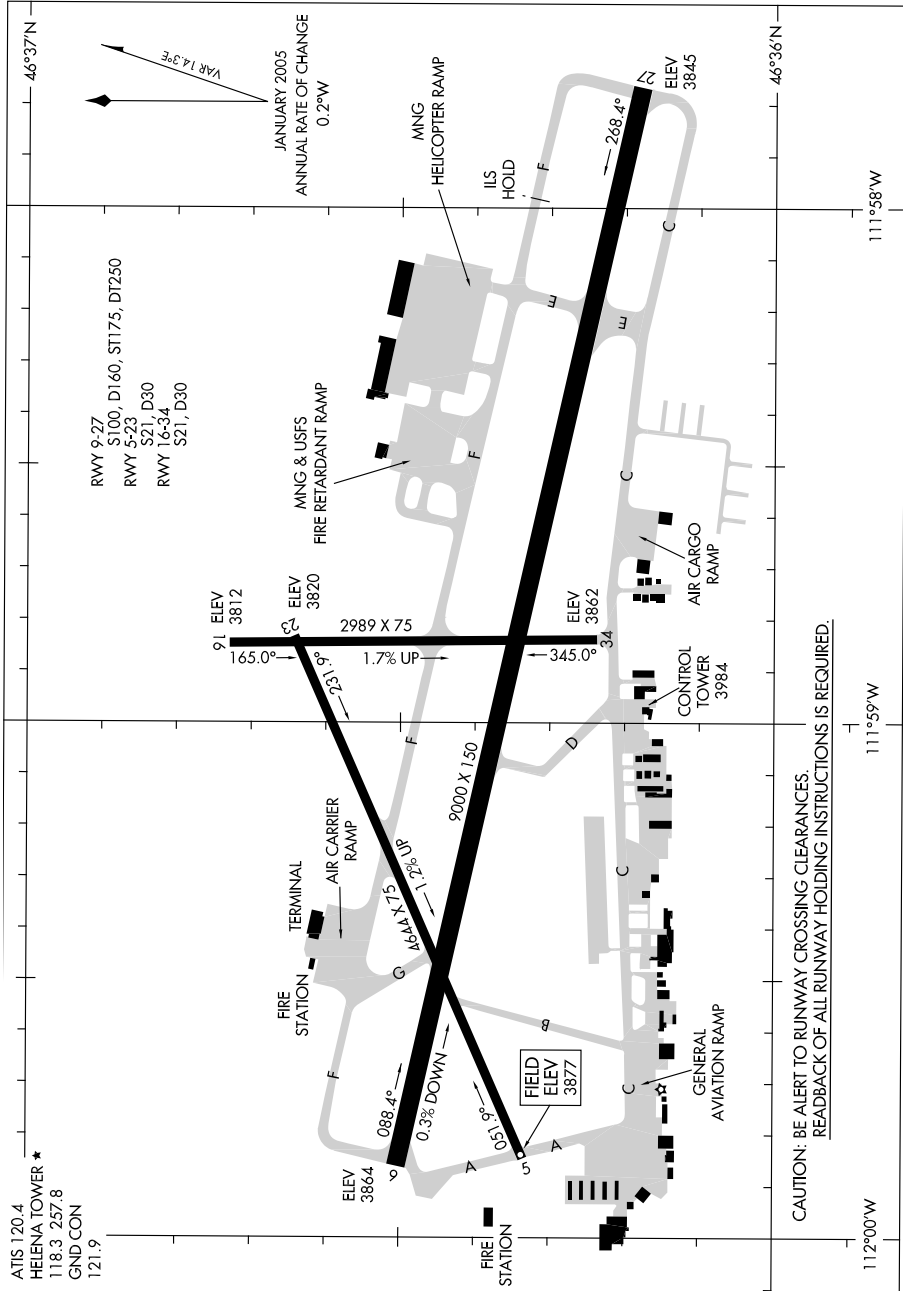
09015

HAILEY, IDAHO
HAILEY/ FRIEDMAN MEMORIAL (SUN)

08269

AIRPORT DIAGRAM

AL-192 (FAA)

HELENA RGNL (HLN)
HELENA, MONTANA

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

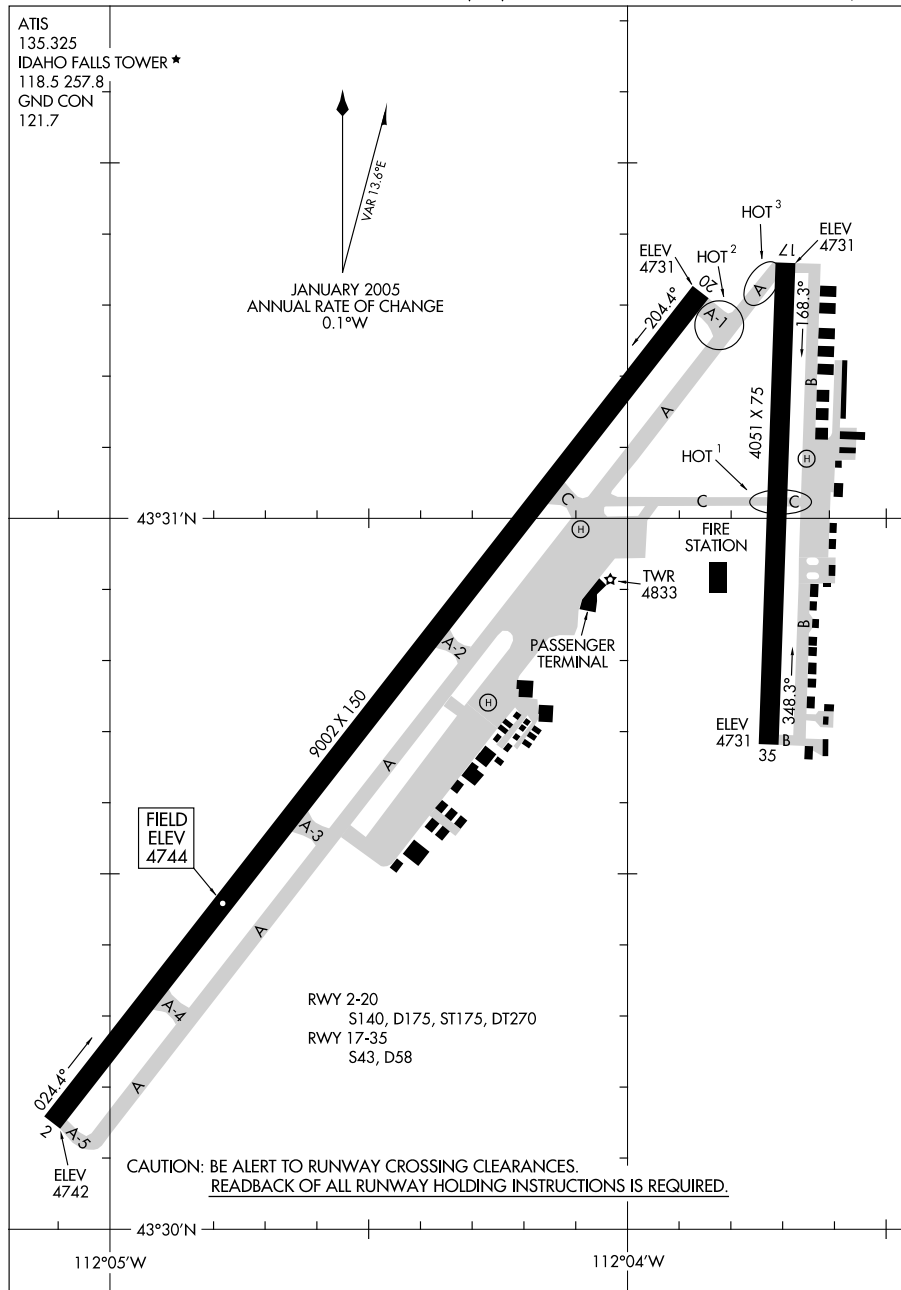
38269

HELENA, MONTANA
HELENA RGNL (HLN)

09183

AIRPORT DIAGRAM

AL-590 (FAA)

IDAHO FALLS RGNL (IDA)
IDAHO FALLS, IDAHO

AIRPORT DIAGRAM

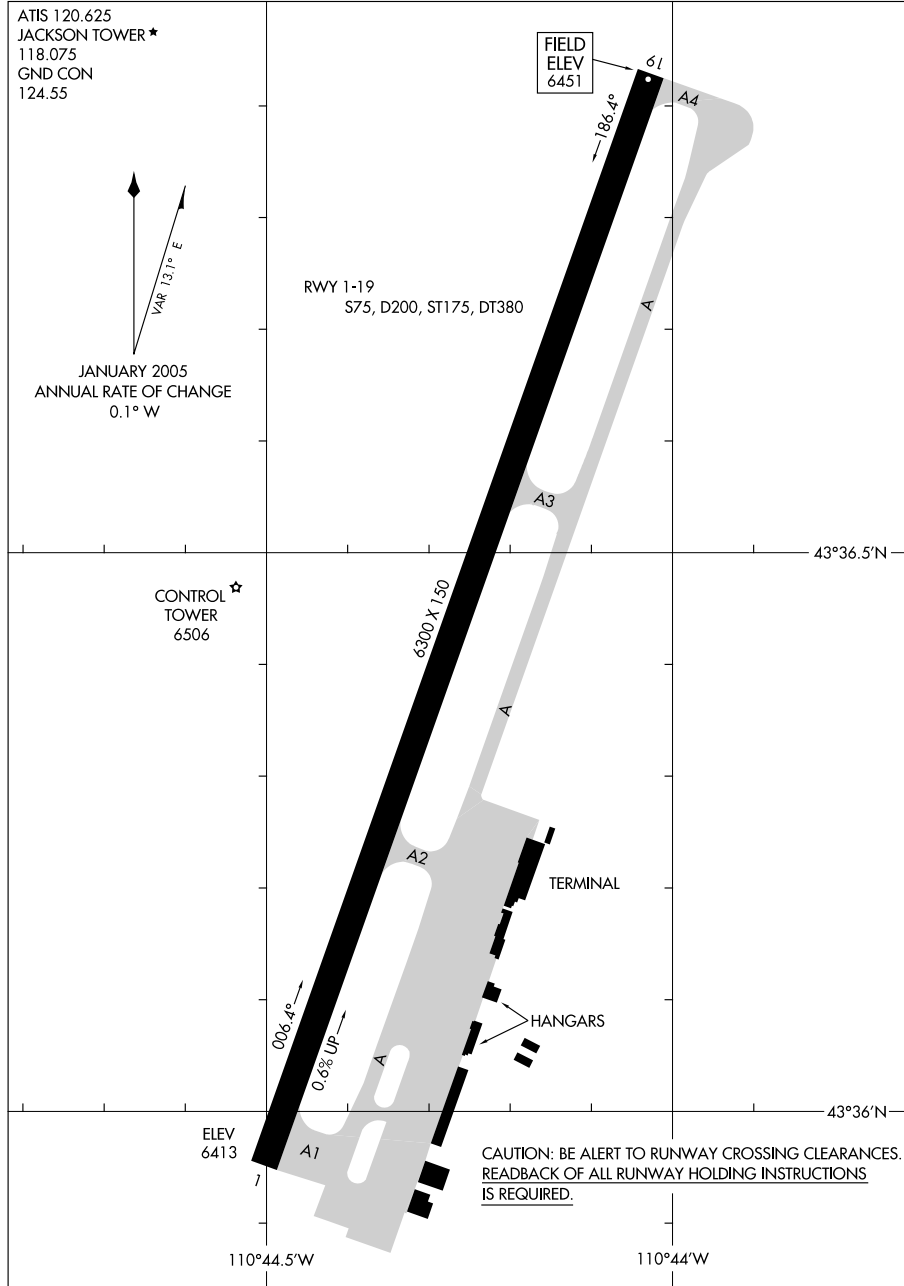
09183

IDAHO FALLS, IDAHO
IDAHO FALLS RGNL (IDA)

08157

AIRPORT DIAGRAM

AL-504 (FAA)

JACKSON HOLE (JAC)
JACKSON, WYOMING

AIRPORT DIAGRAM

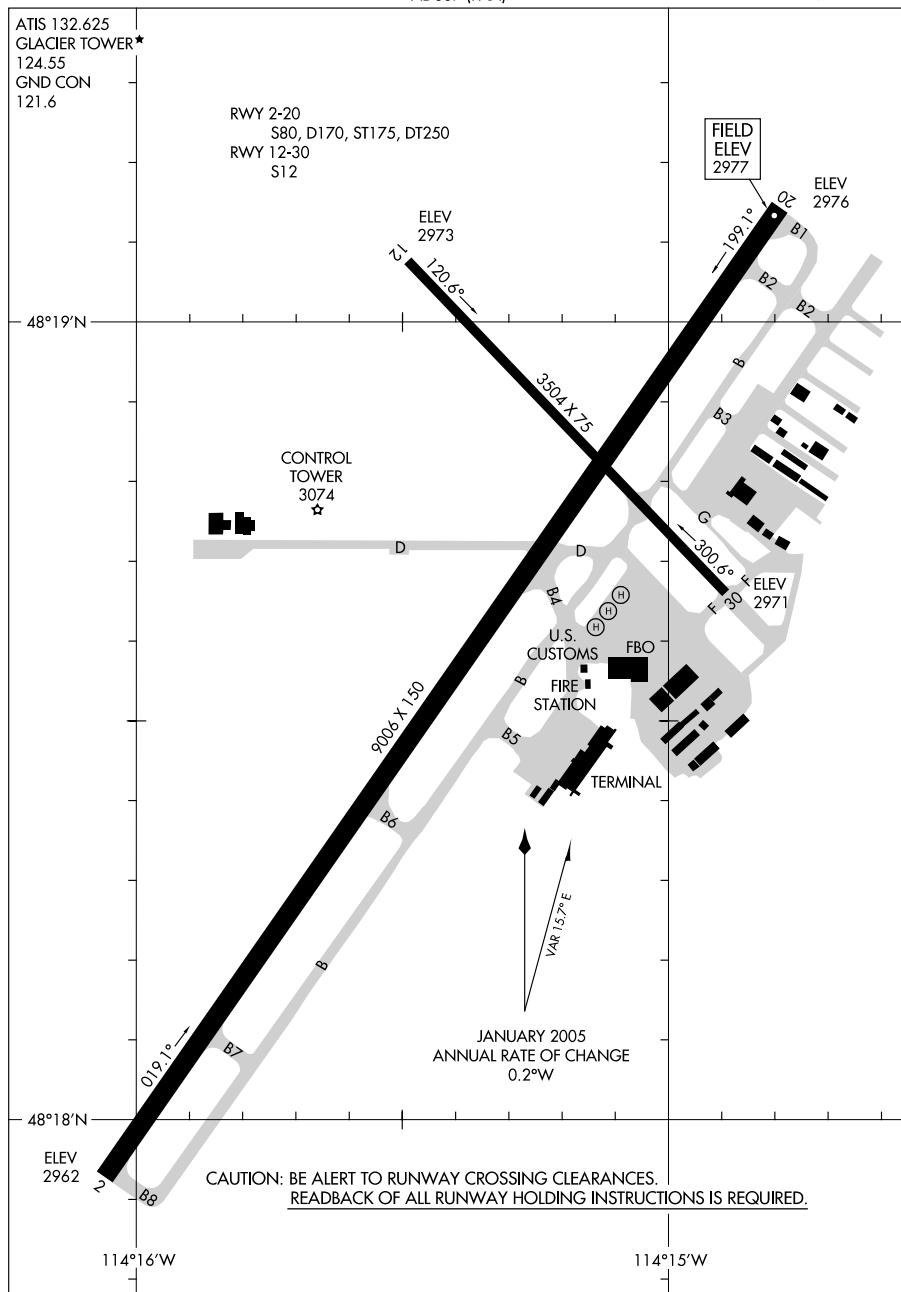
JACKSON, WYOMING
JACKSON HOLE (JAC)

08157

07354

AIRPORT DIAGRAM

AL-887 (FAA)

KALISPELL/GLACIER PARK INTL (GPI)
KALISPELL, MONTANA

AIRPORT DIAGRAM

07354

KALISPELL, MONTANA
KALISPELL/GLACIER PARK INTL (GPI)

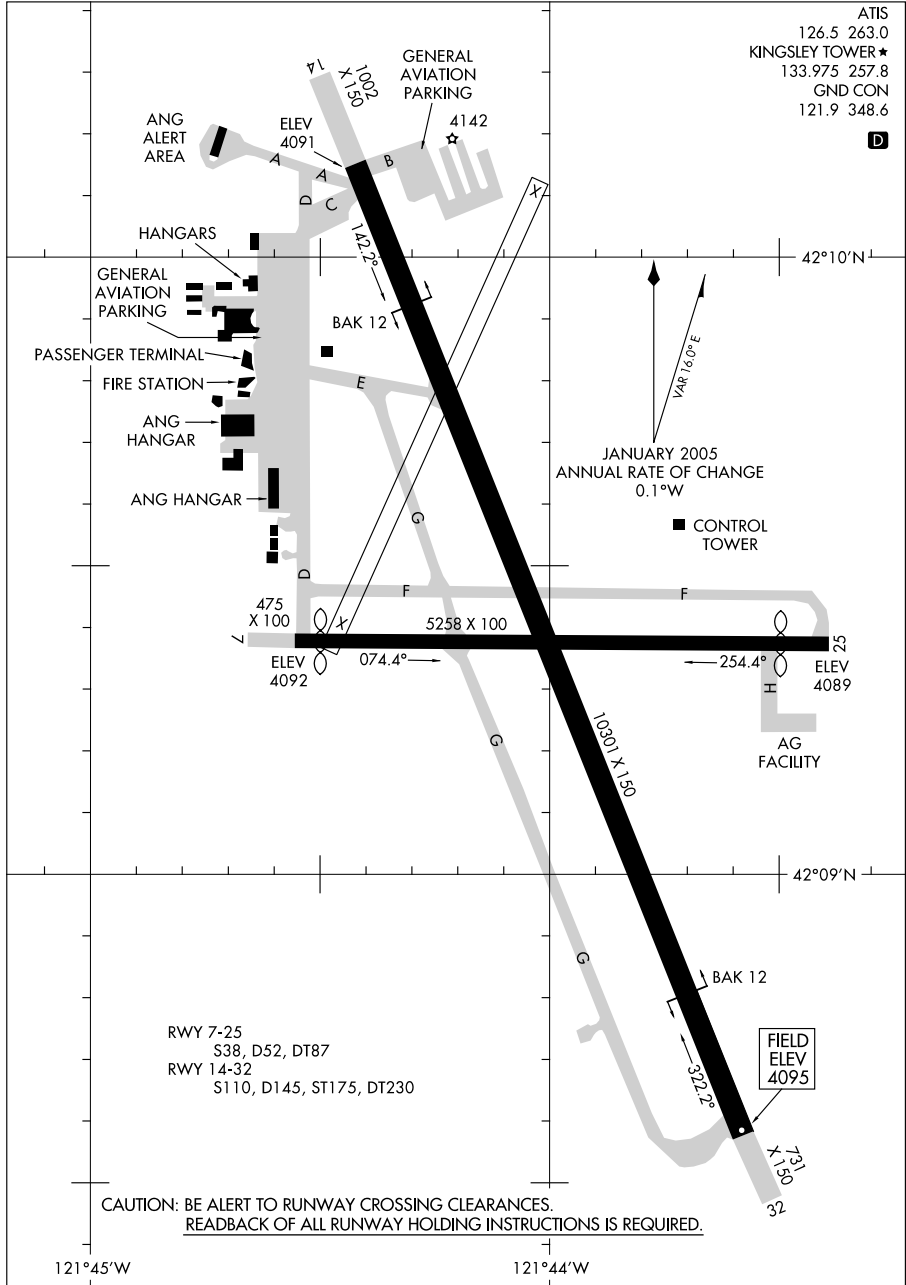
09127

AIRPORT DIAGRAM

AL-473 (FAA)

KLAMATH FALLS (LMT)

KLAMATH FALLS, OREGON



AIRPORT DIAGRAM

09127

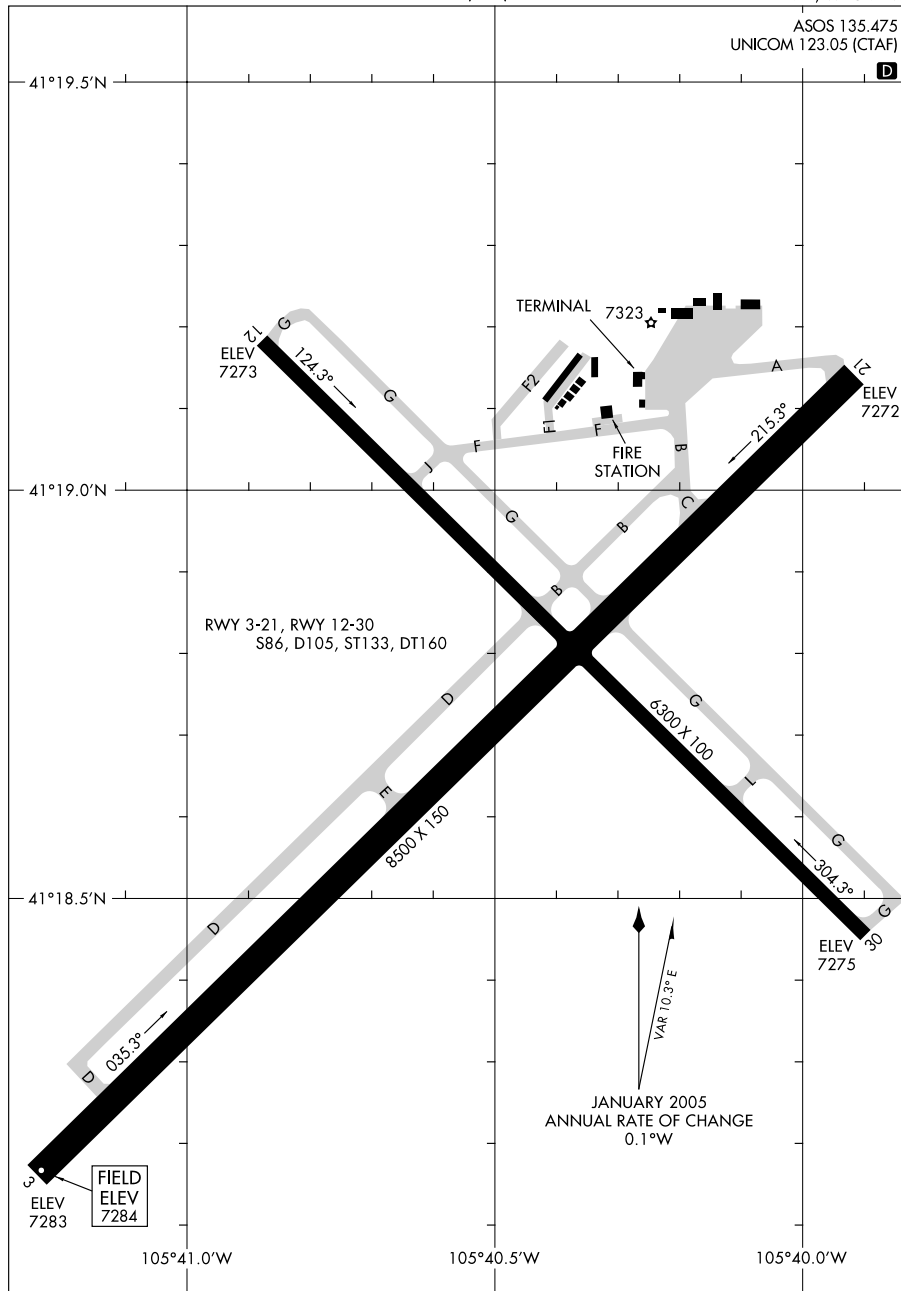
KLAMATH FALLS, OREGON

KLAMATH FALLS (LMT)

09351

AIRPORT DIAGRAM

AL-225 (FAA)

LARAMIE RGNL (LAR)
LARAMIE, WYOMINGASOS 135.475
UNICOM 123.05 (CTAF)

AIRPORT DIAGRAM

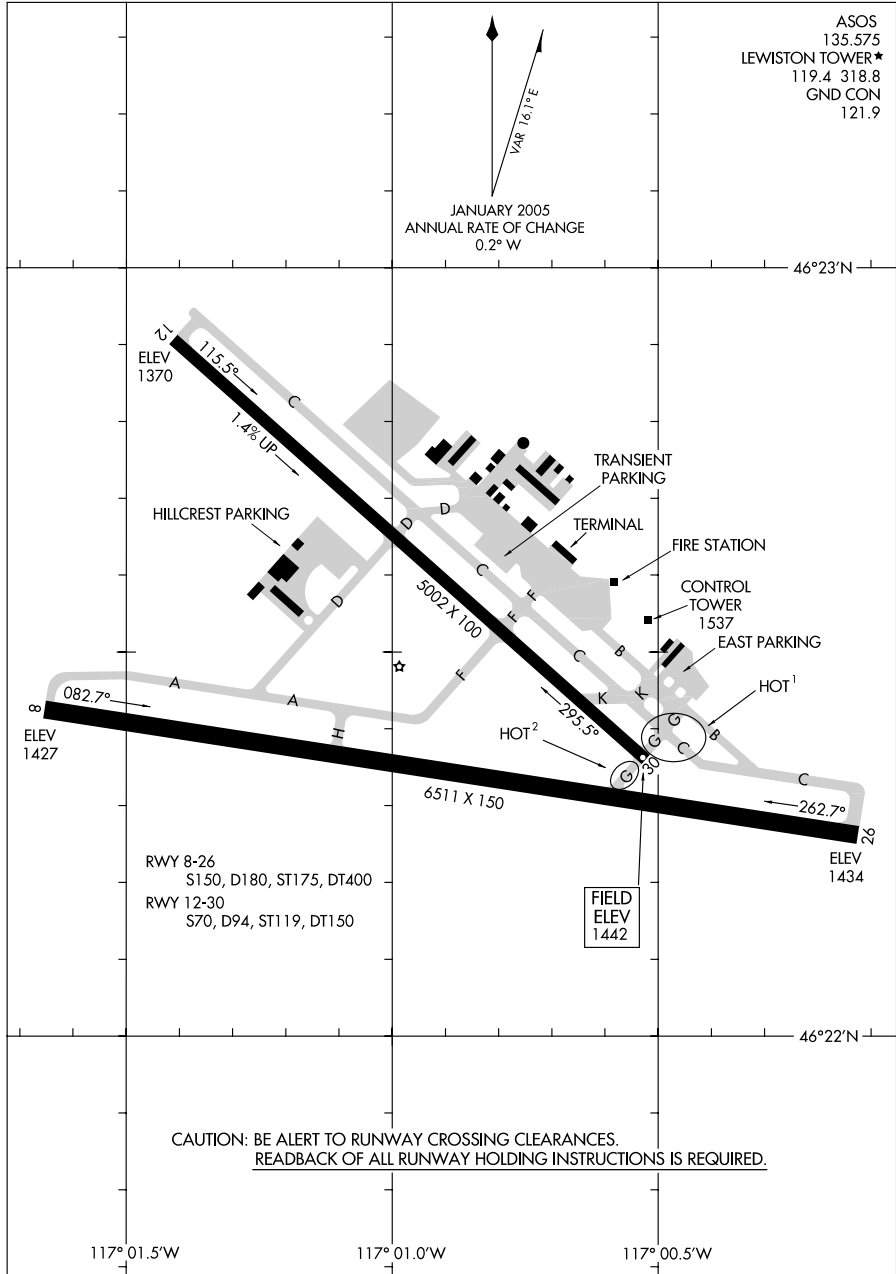
09351

LARAMIE, WYOMING
LARAMIE RGNL (LAR)

09295

AIRPORT DIAGRAM

LEWISTON-NEZ PERCE COUNTY (LWS)
LEWISTON, IDAHO



AIRPORT DIAGRAM

09295

LEWISTON, IDAHO
LEWISTON-NEZ PERCE COUNTY (LWS)

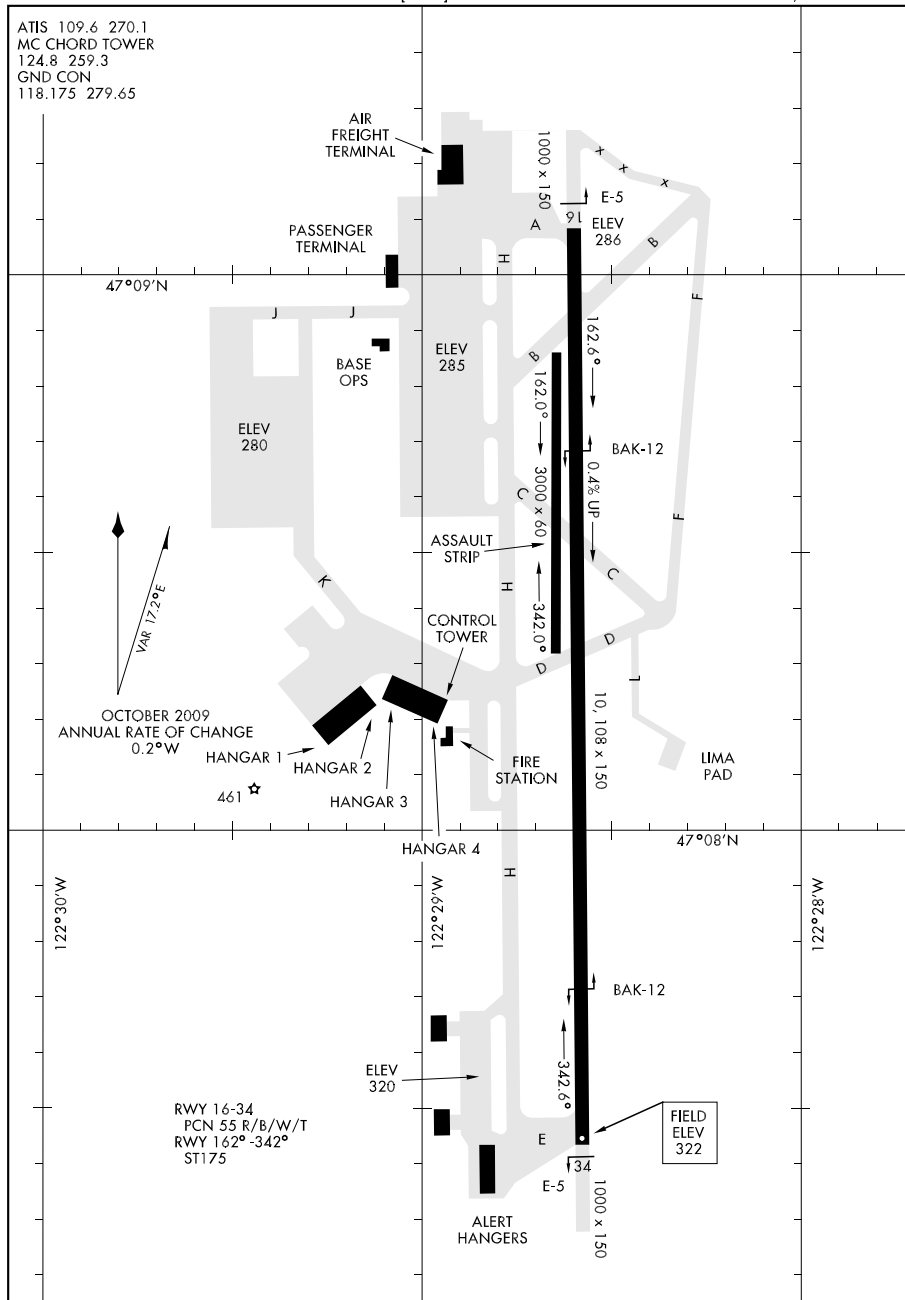
09295

AIRPORT DIAGRAM

[USAF] AFD-414

MC CHORD AFB (KTCM)

TACOMA, WASHINGTON



AIRPORT DIAGRAM

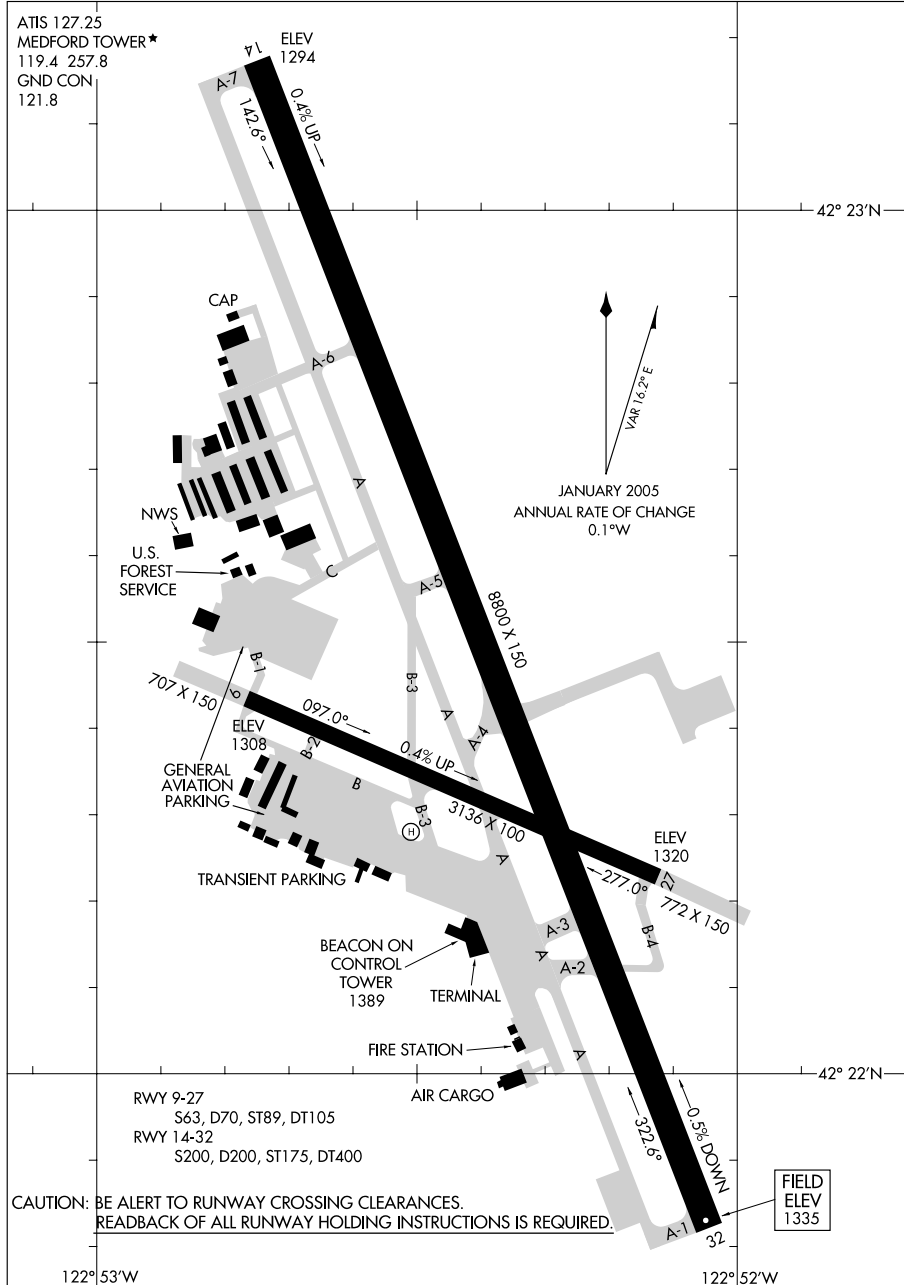
TACOMA, WASHINGTON

MC CHORD AFB (KTCM)

06215

AIRPORT DIAGRAM

MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)
AL-251 (FAA) MEDFORD, OREGON



AIRPORT DIAGRAM

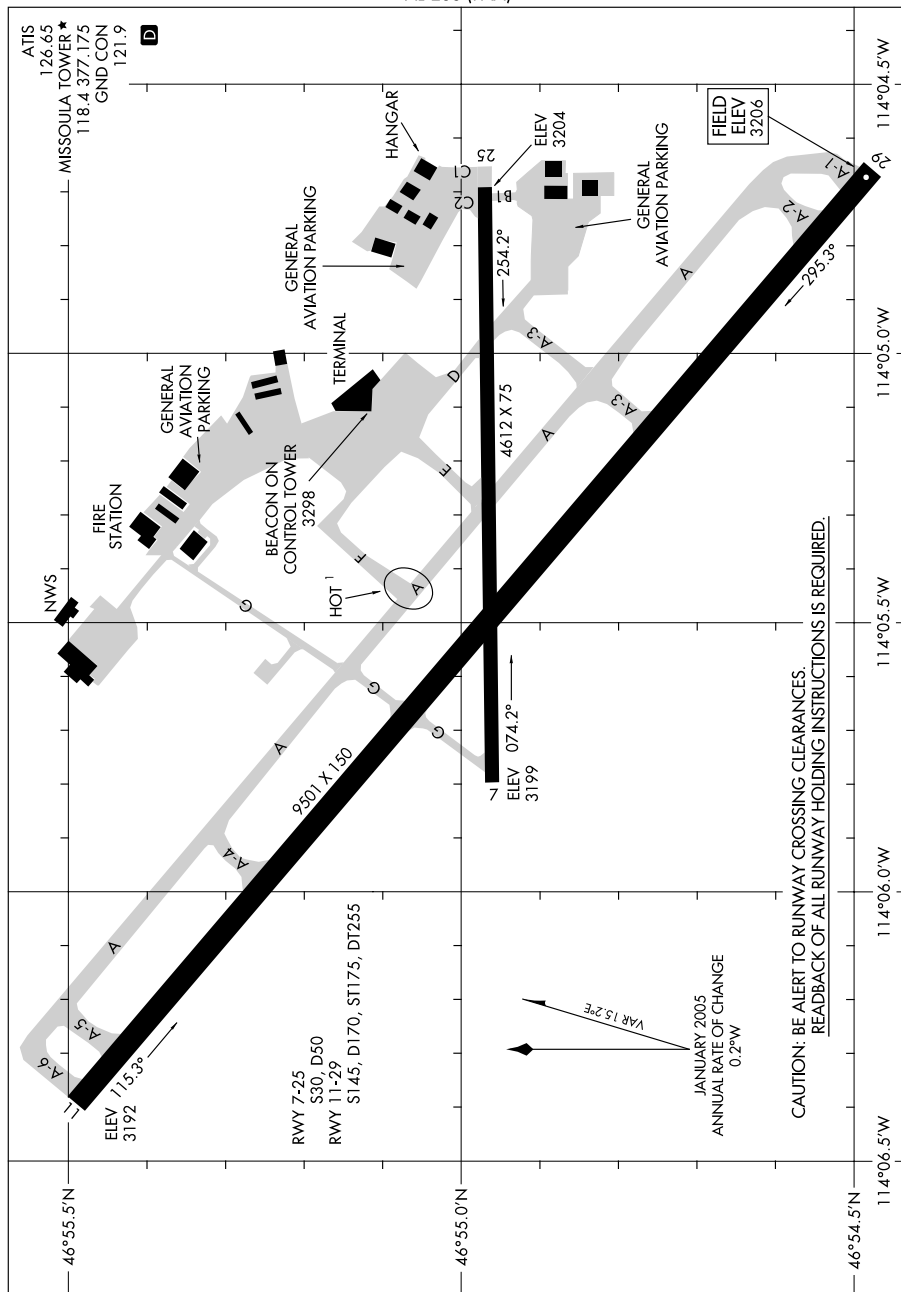
06215

MEDFORD, OREGON
MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)

09351

AIRPORT DIAGRAM

AL-266 (FAA)

MISSOULA INTL (MSO)
MISSOULA, MONTANA

AIRPORT DIAGRAM

MISSOULA, MONTANA
MISSOULA INTL (MSO)

09351

AIRPORT DIAGRAM

MOSES LAKE, WASHINGTON

ATIS 119.05
GRANT COUNTY TOWER ★
118.25 128.0 257.8
GND CON
121.9

RWY 4-22
S75, D100, ST127, DT175, DDT475
RWY 9-27
S100, D150, DT270, DDT475
RWY 14L-32R
S85, D155, ST175, DT320, DDT600
RWY 14R-32L
S100, D200, ST175, DT400, DDT400
RWY 18-36
S75, D170, ST175, DT300, DDT400

47°13'N
VAR 17.0°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W

47°12'N

FIELD
ELEV
1189

1007 X 100

TRANSIENT RAMP
U.S. CUSTOMS
MILITARY RAMP
ARFF
AF HANGAR

CONTROL TOWER
1299 ±

ASOS
ILS HOLD

ILS HOLD

EAST RAMP

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

119°20'W 119°19'W 119°18'W

AIRPORT DIAGRAM

MOSES LAKE, WASHINGTON
MOSES LAKE/GRANT COUNTY INTL (MWH)

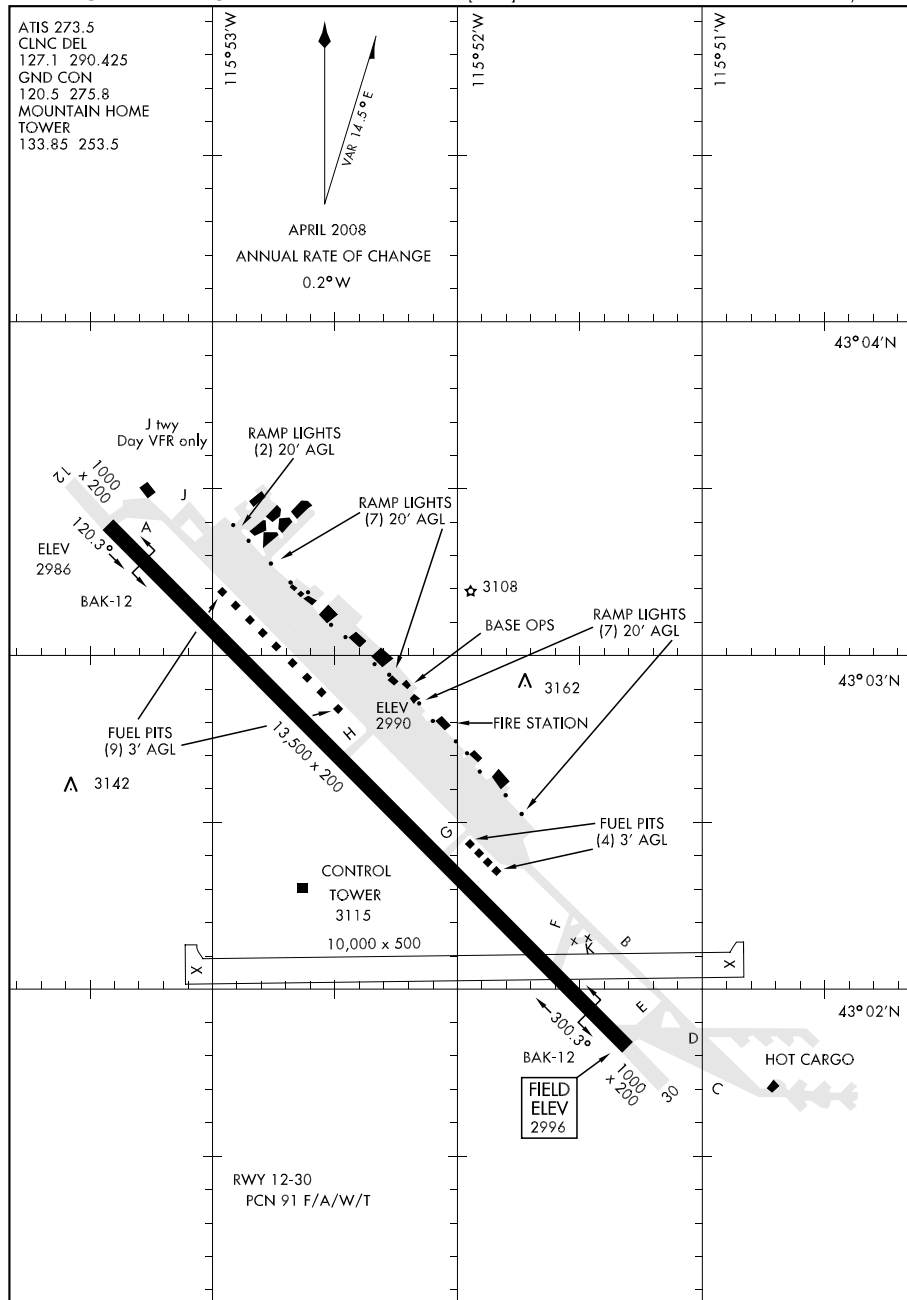
08101

AIRPORT DIAGRAM

AFD-323 [USAF]

MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, IDAHO

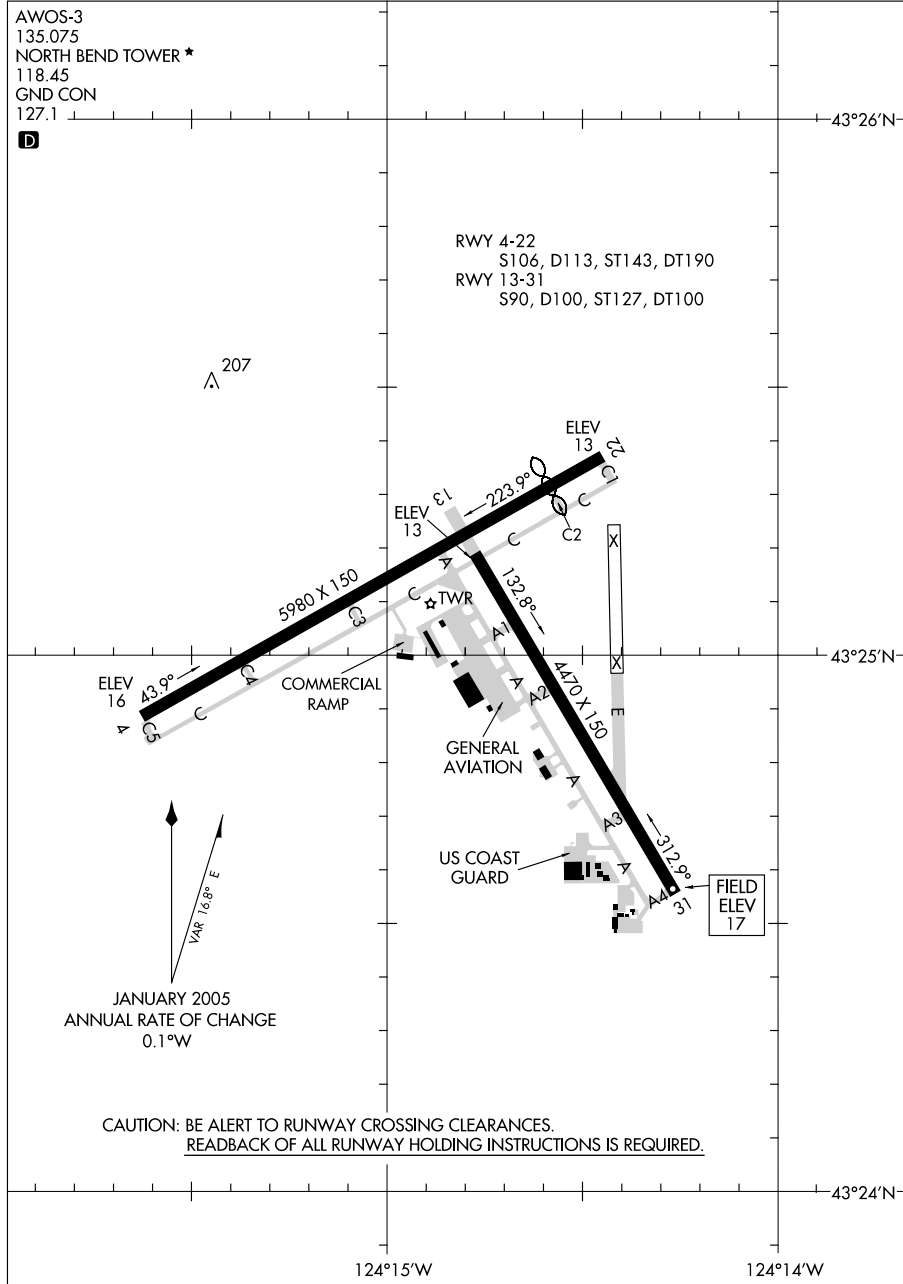


AIRPORT DIAGRAM

 MOUNTAIN HOME, IDAHO
 MOUNTAIN HOME AFB (KMUO)

09351

AIRPORT DIAGRAM

NORTH BEND/SOUTHWEST OREGON RGNL (OTH)
AL-929 (FAA) NORTH BEND, OREGON

AIRPORT DIAGRAM

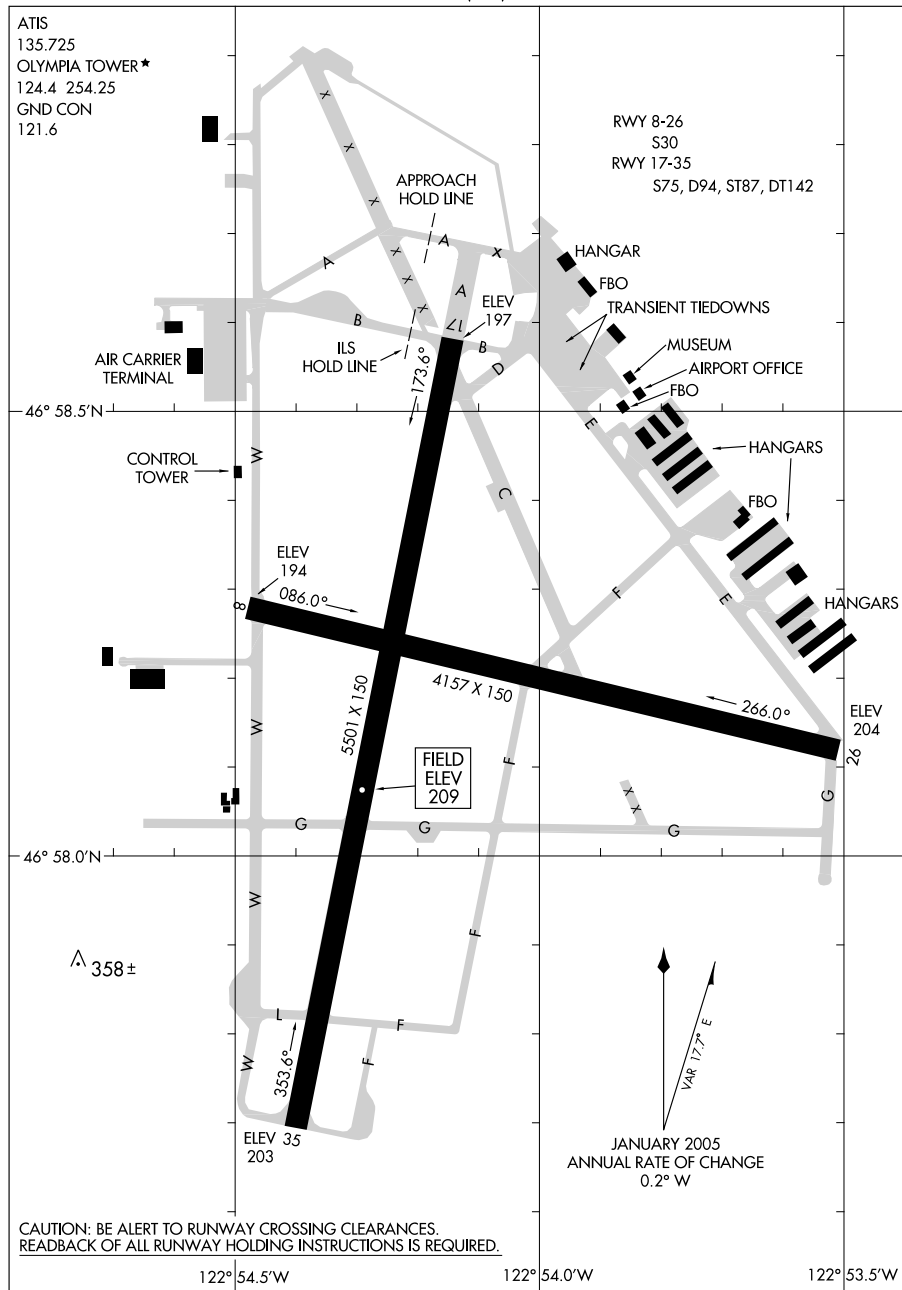
09351

NORTH BEND, OREGON
NORTH BEND/SOUTHWEST OREGON RGNL (OTH)

09127

AIRPORT DIAGRAM

AL-645 (FAA)

OLYMPIA RGNL (OLM)
OLYMPIA, WASHINGTON

AIRPORT DIAGRAM

09127

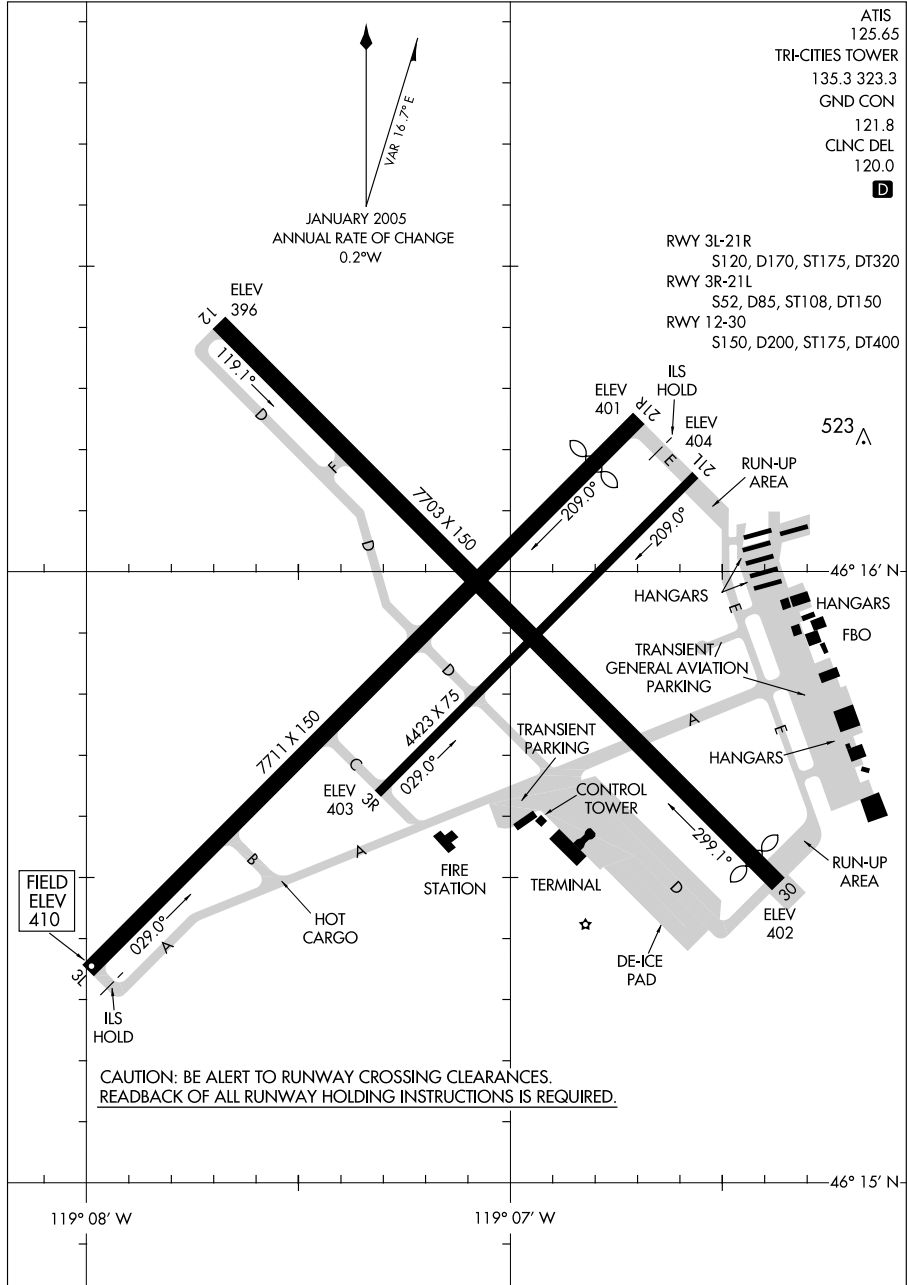
OLYMPIA, WASHINGTON
OLYMPIA RGNL (OLM)

09015

AIRPORT DIAGRAM

AL-474 (FAA)

PASCO/TRI-CITIES (PSC)
PASCO, WASHINGTON



AIRPORT DIAGRAM

09015

PASCO, WASHINGTON
PASCO/TRI-CITIES (PSC)

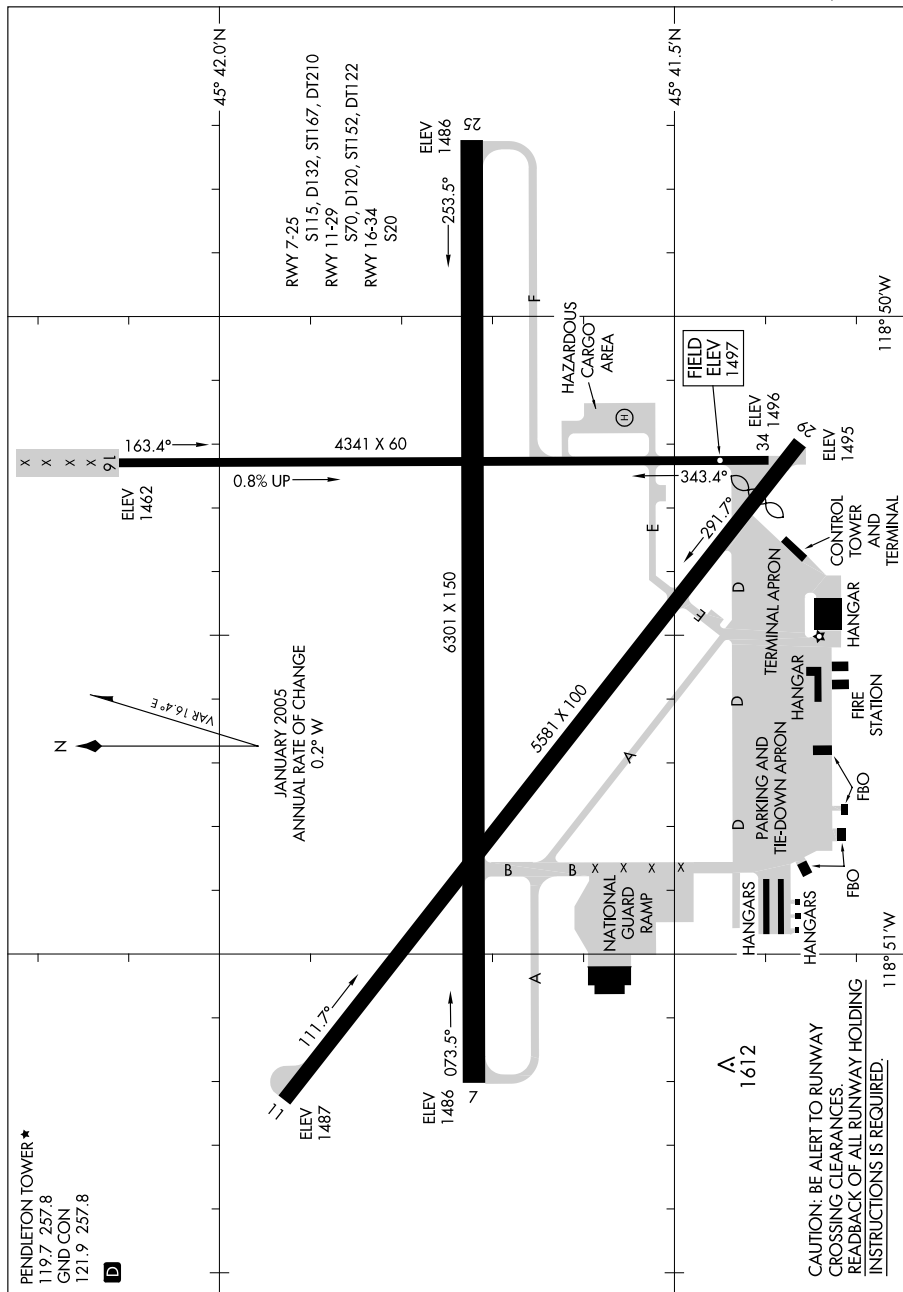
09015

AIRPORT DIAGRAM

PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

AL-316 (FAA)

PENDLETON, OREGON



AIRPORT DIAGRAM

09015

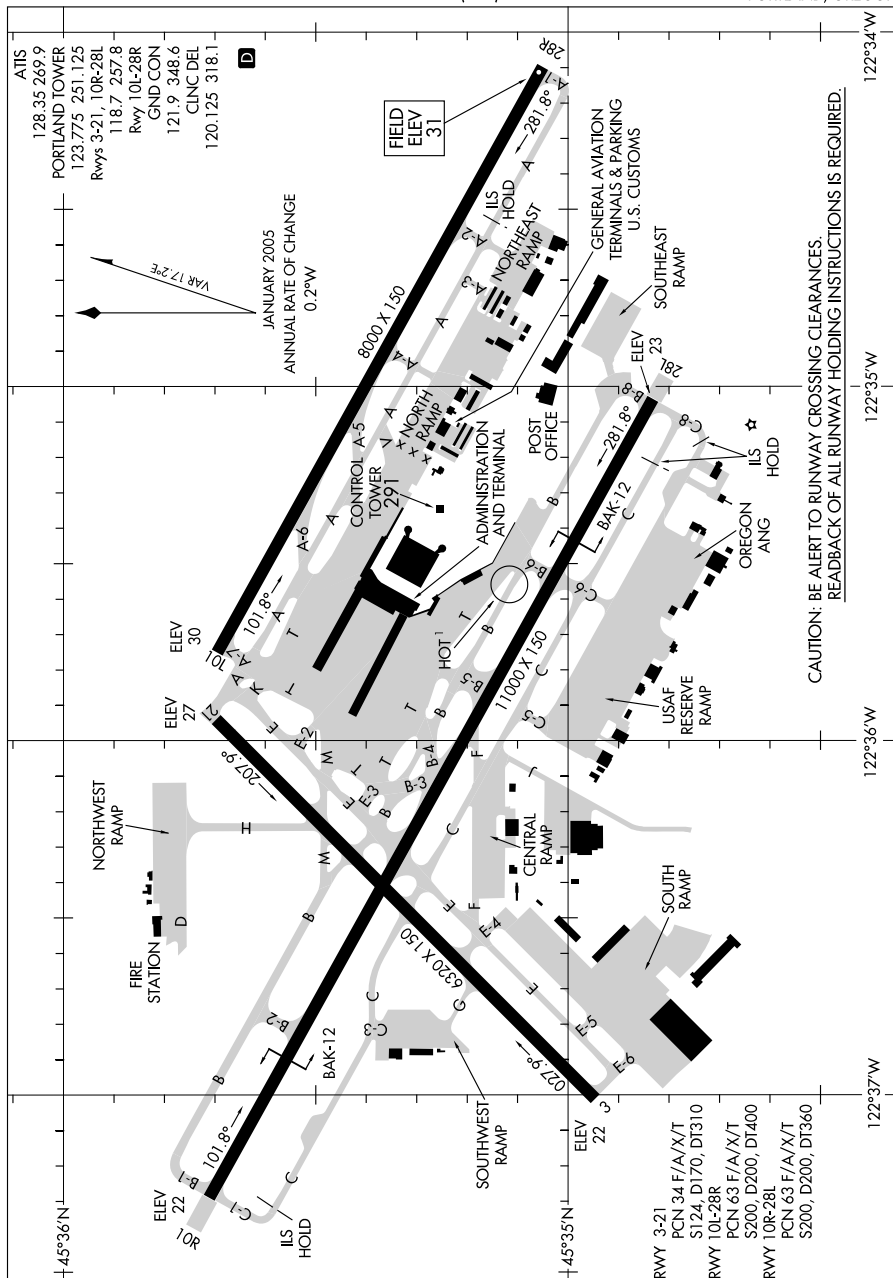
PENDLETON, OREGON
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

NW, 17 DEC 2009 to 11 FEB 2010

09351

AIRPORT DIAGRAM

AL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGONCAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

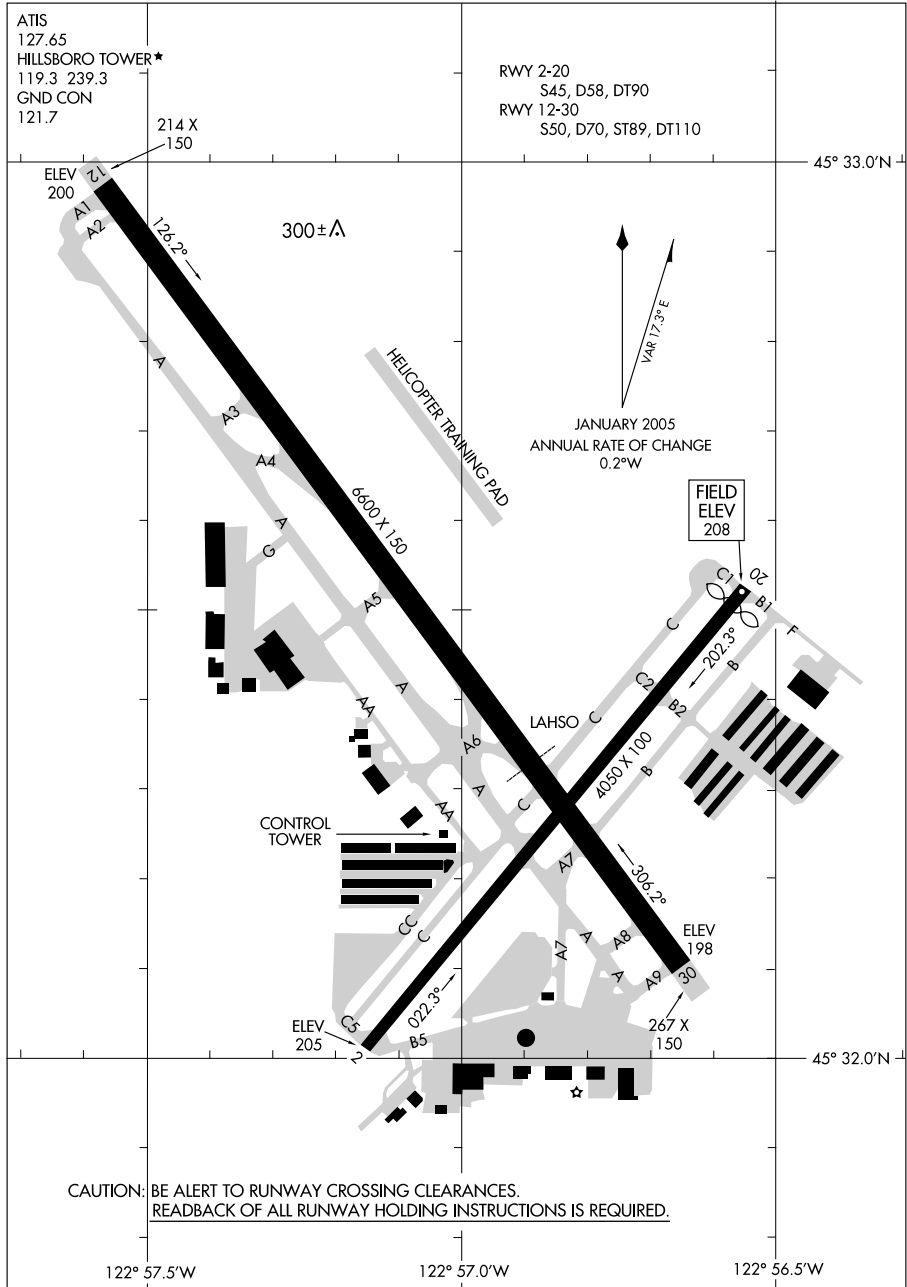
PORTLAND, OREGON
PORTLAND INTL (PDX)

09351

AIRPORT DIAGRAM

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON

AL-5063 (FAA)



AIRPORT DIAGRAM

PORTLAND, OREGON
PORTLAND-HILLSBORO (HIO)

09351

NW, 17 DEC 2009 to 11 FEB 2010

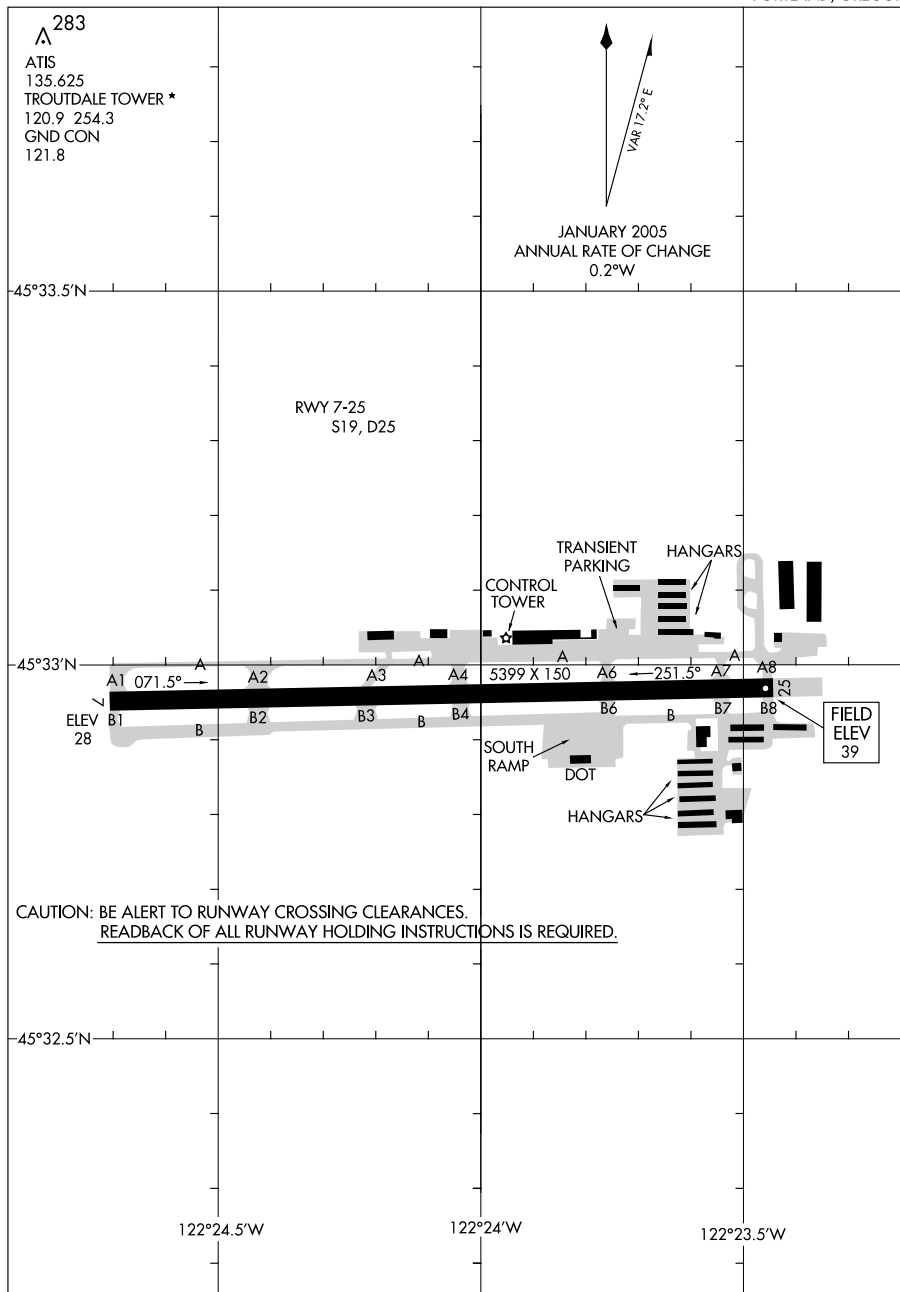
09127

AIRPORT DIAGRAM

AL-649 (FAA)

PORTLAND-TROUTDALE (TTD)

PORTLAND, OREGON



AIRPORT DIAGRAM

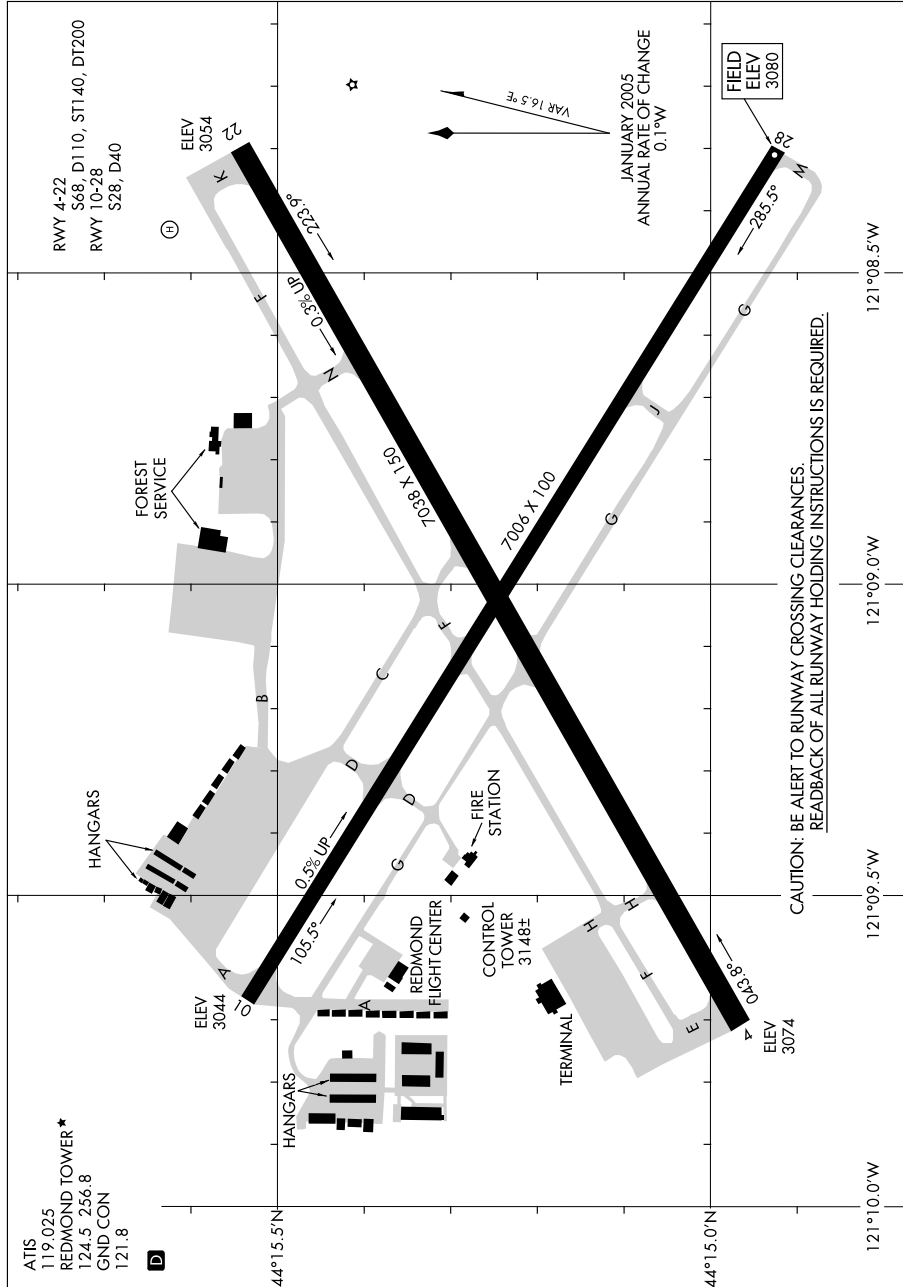
09127

PORTLAND, OREGON
 PORTLAND-TROUTDALE (TTD)

09351

AIRPORT DIAGRAM

AL-345 (FAA)

REDMOND/ ROBERTS FIELD (RDM)
REDMOND, OREGON

AIRPORT DIAGRAM

09351

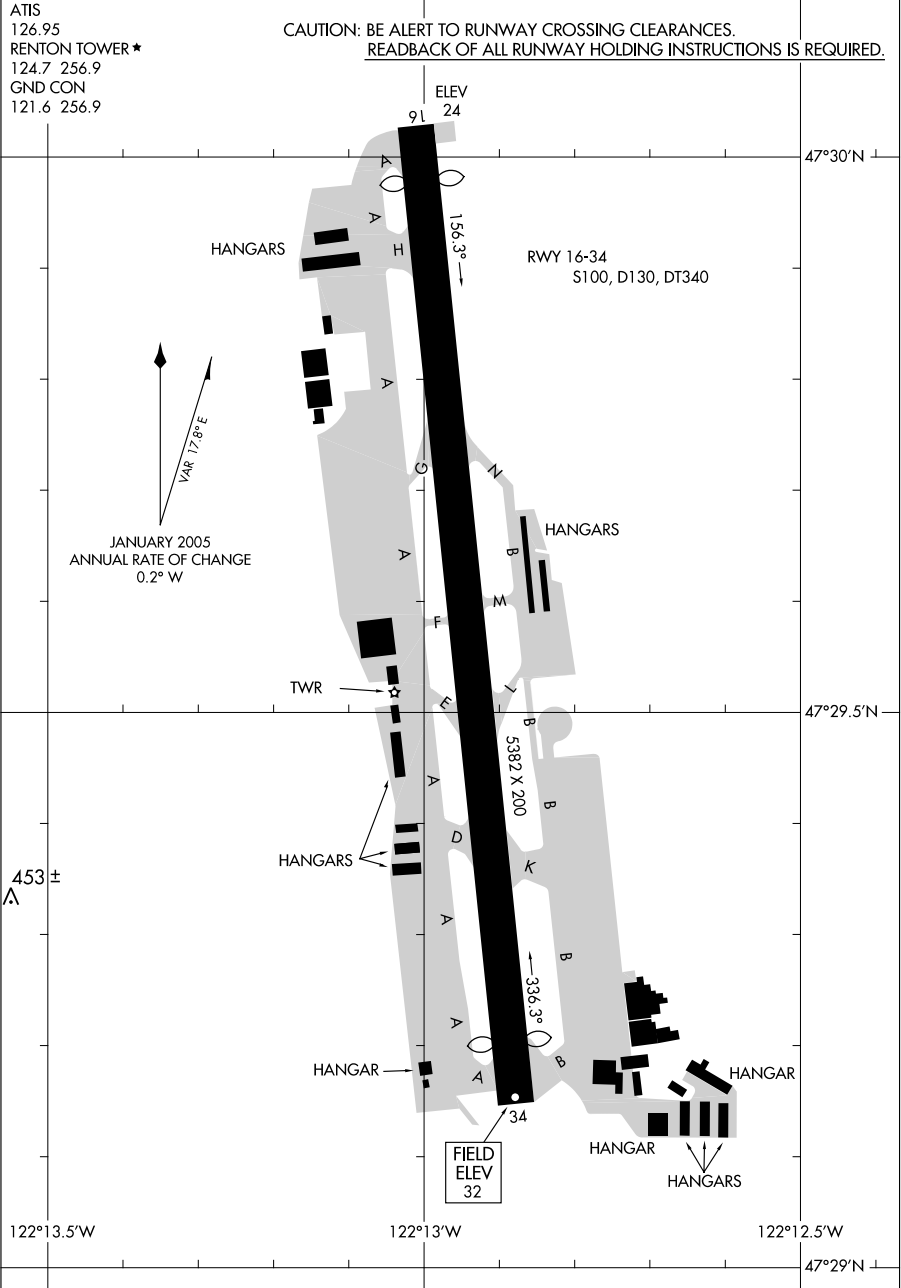
REDMOND, OREGON
REDMOND/ ROBERTS FIELD (RDM)

09239

AIRPORT DIAGRAM

RENTON MUNI (RNT)
RENTON, WASHINGTON

AL-5396 (FAA)



AIRPORT DIAGRAM

RENTON, WASHINGTON
RENTON MUNI (RNT)

09239

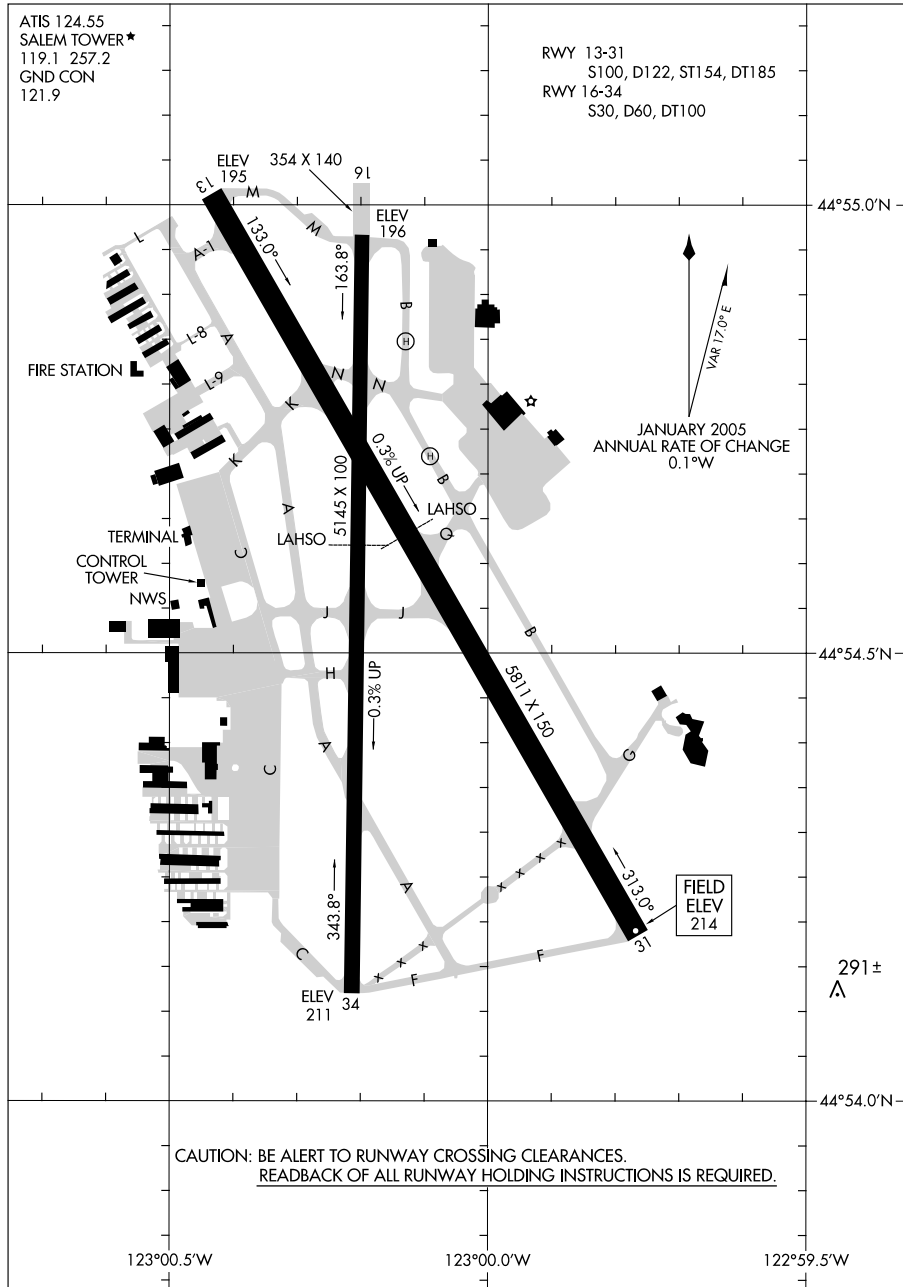
06215

AIRPORT DIAGRAM

AL-361 (FAA)

SALEM/MCINRY FIELD (SLE)

SALEM, OREGON



AIRPORT DIAGRAM

06215

SALEM, OREGON

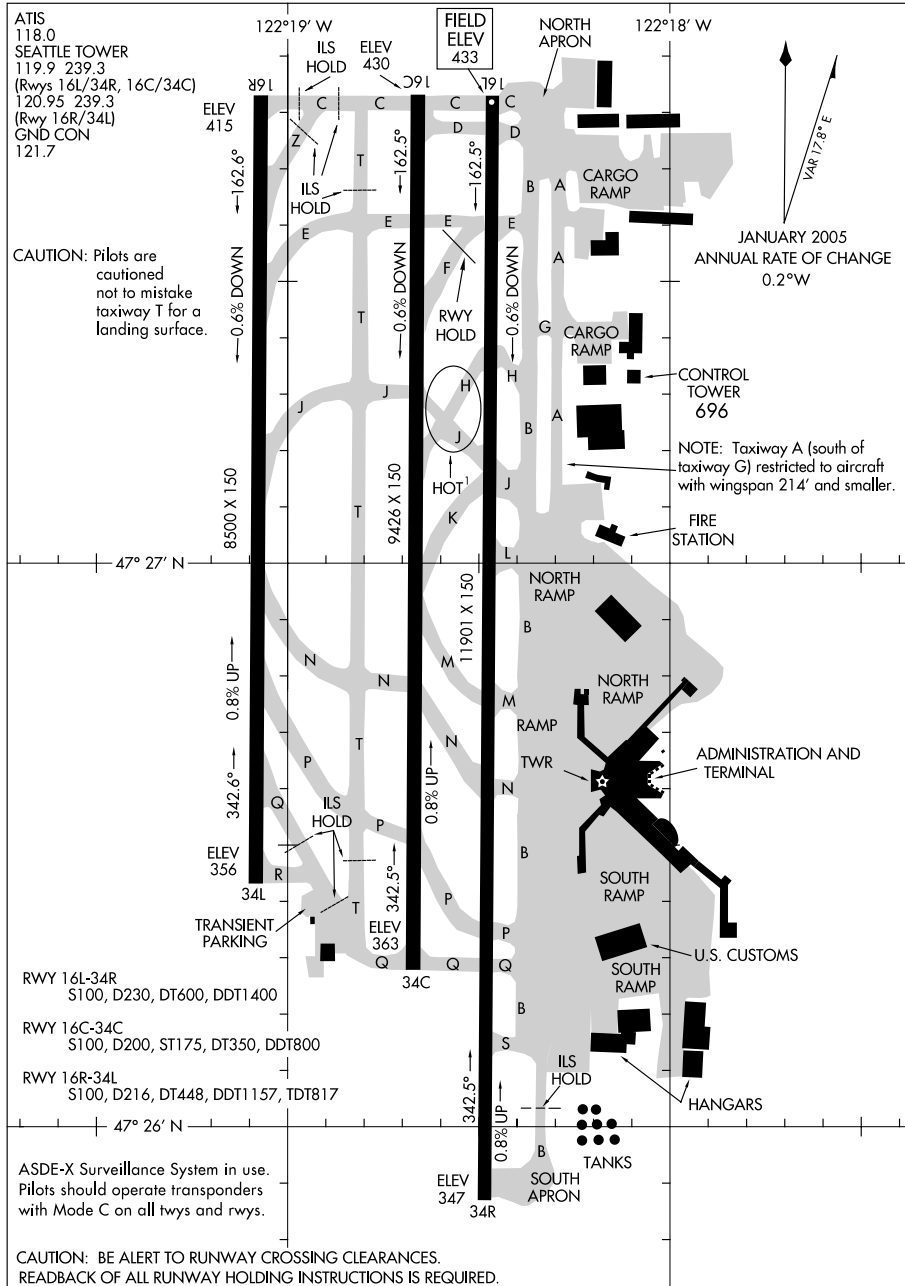
SALEM/MCINRY FIELD (SLE)

09351

AIRPORT DIAGRAM

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON

AL-582 (FAA)



AIRPORT DIAGRAM

09351

SEATTLE, WASHINGTON
SEATTLE-TACOMA INTL (SEA)

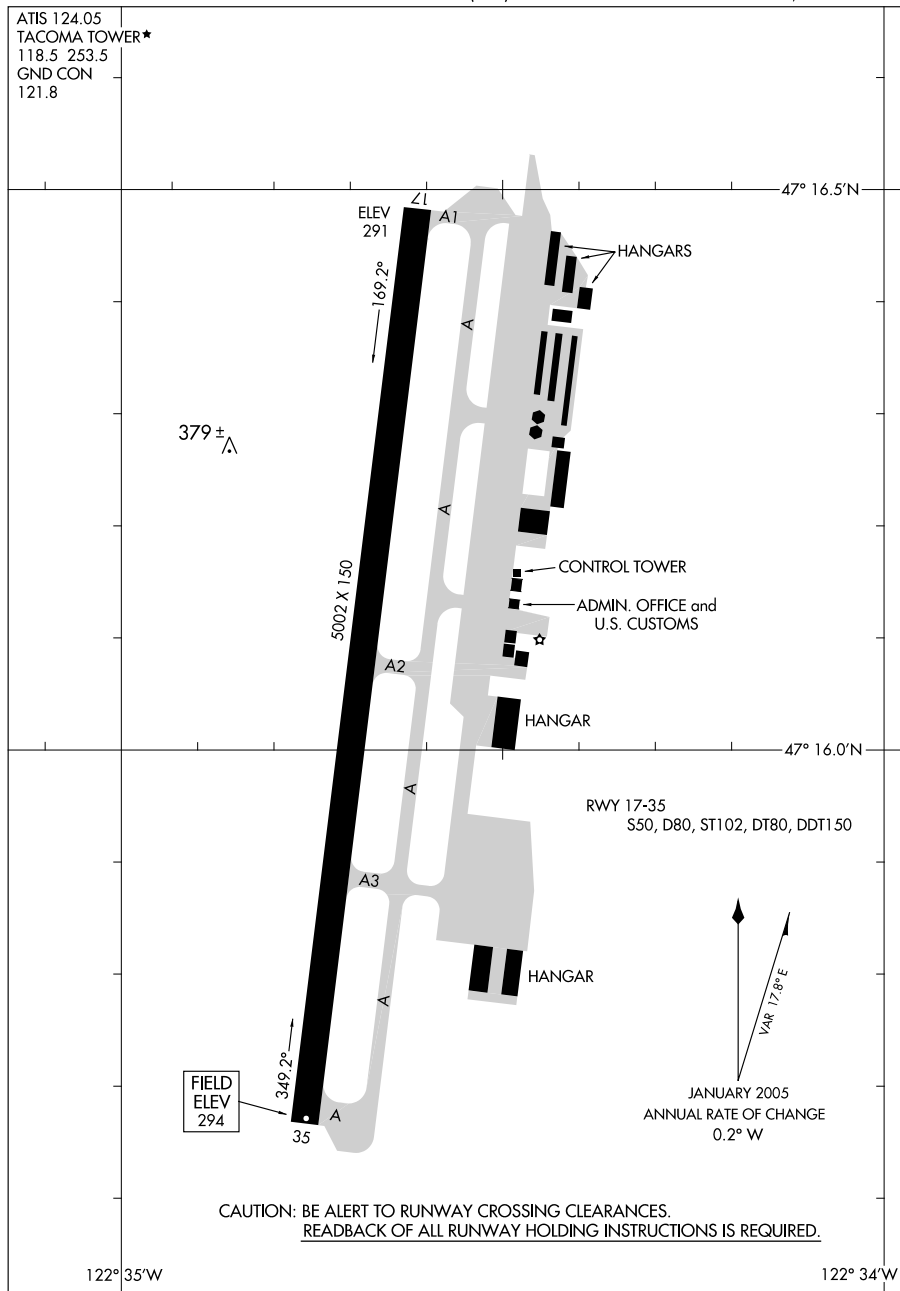
07074

AIRPORT DIAGRAM

AL-5186 (FAA)

TACOMA NARROWS (TIW)
TACOMA, WASHINGTON

ATIS 124.05
TACOMA TOWER★
118.5 253.5
GND CON
121.8



AIRPORT DIAGRAM

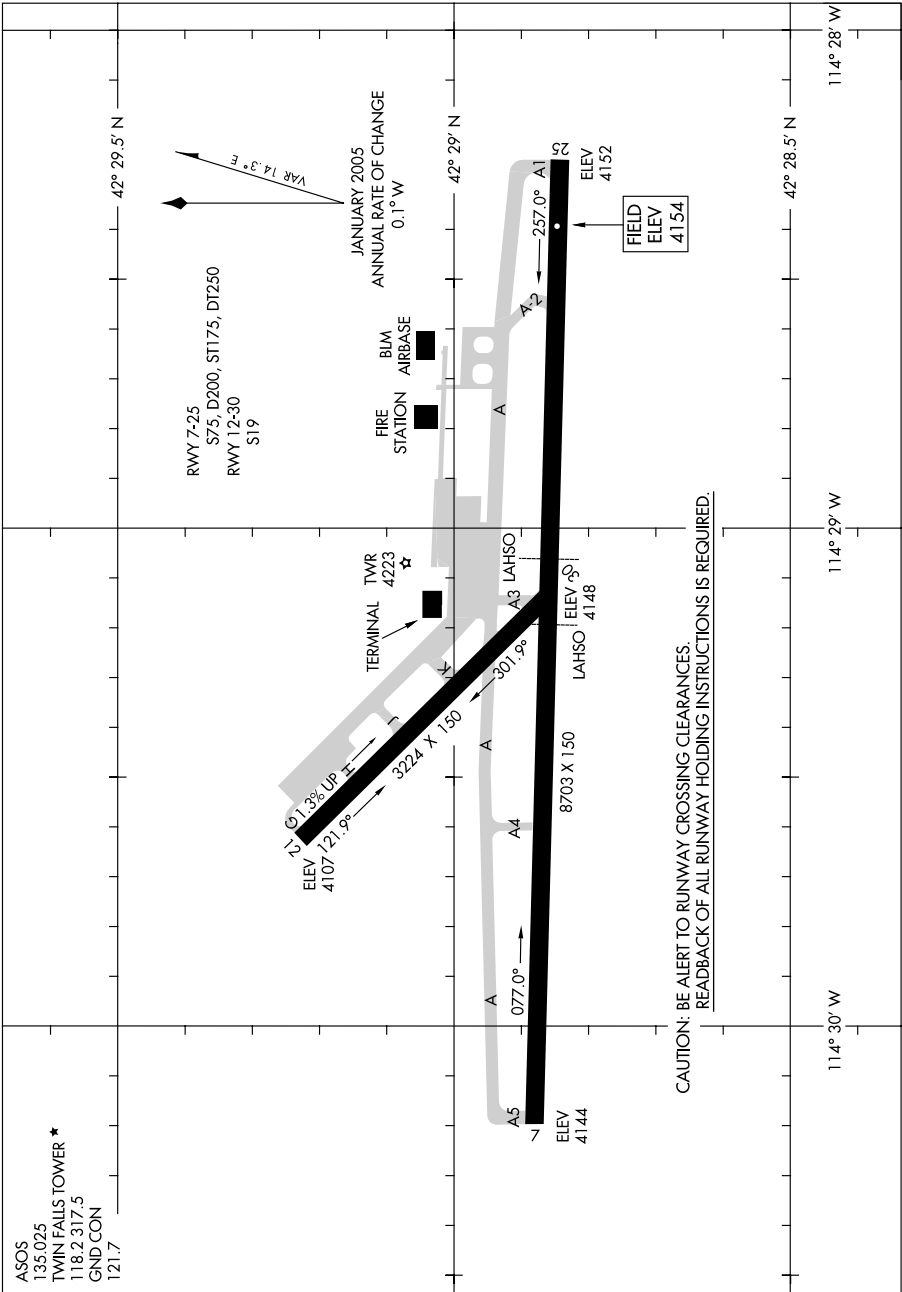
07074

TACOMA, WASHINGTON
TACOMA NARROWS (TIW)

09239

AIRPORT DIAGRAM

TWIN FALLS/JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)
AL-885 (FAA) TWIN FALLS, IDAHO



AIRPORT DIAGRAM

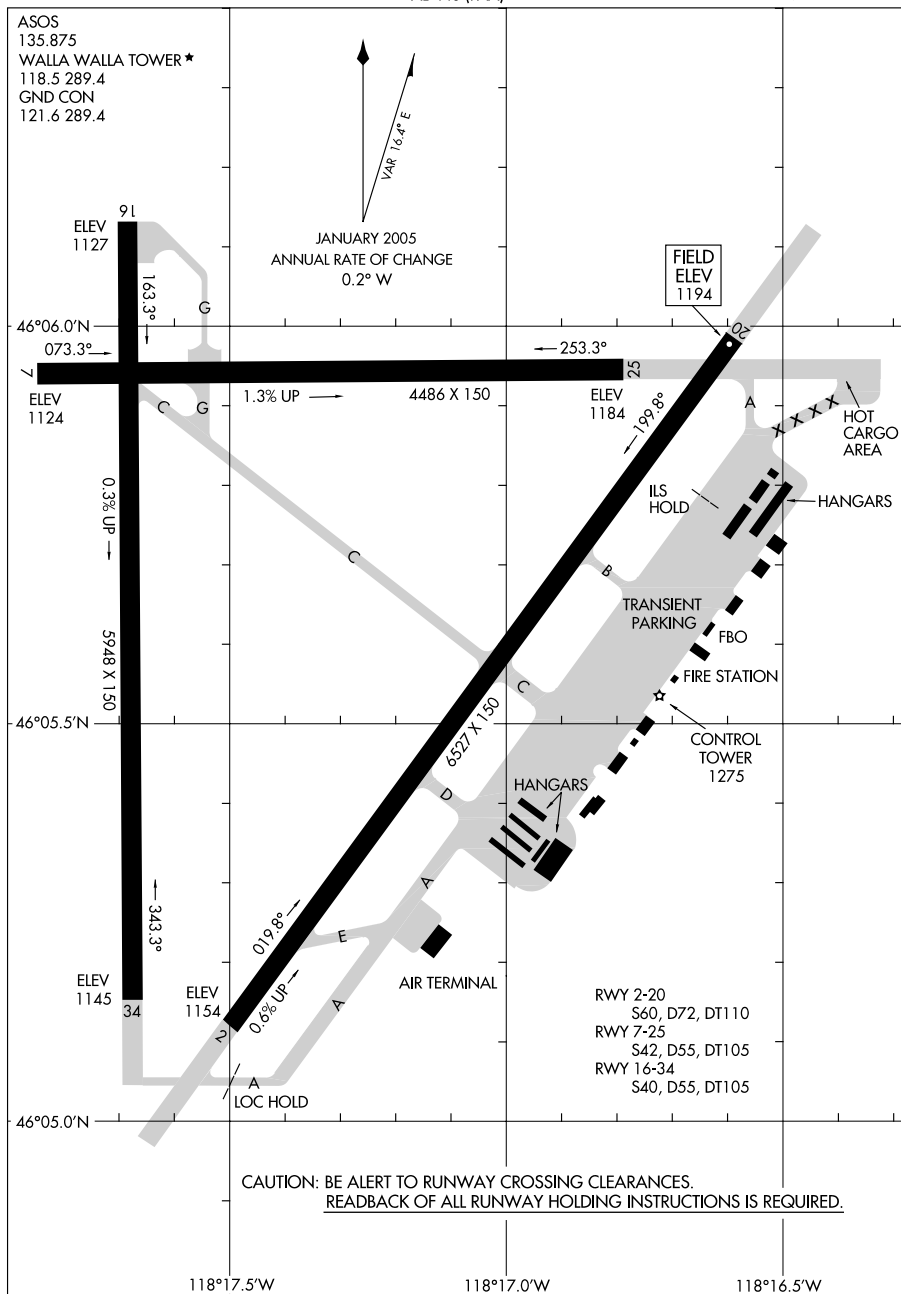
09239

TWIN FALLS, IDAHO
TWIN FALLS/JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

09127

AIRPORT DIAGRAM

AL-440 (FAA)

WALLA WALLA RGNL (A1,W)
WALLA WALLA, WASHINGTON

AIRPORT DIAGRAM

09127

WALLA WALLA, WASHINGTON
WALLA WALLA RGNL (A1,W)

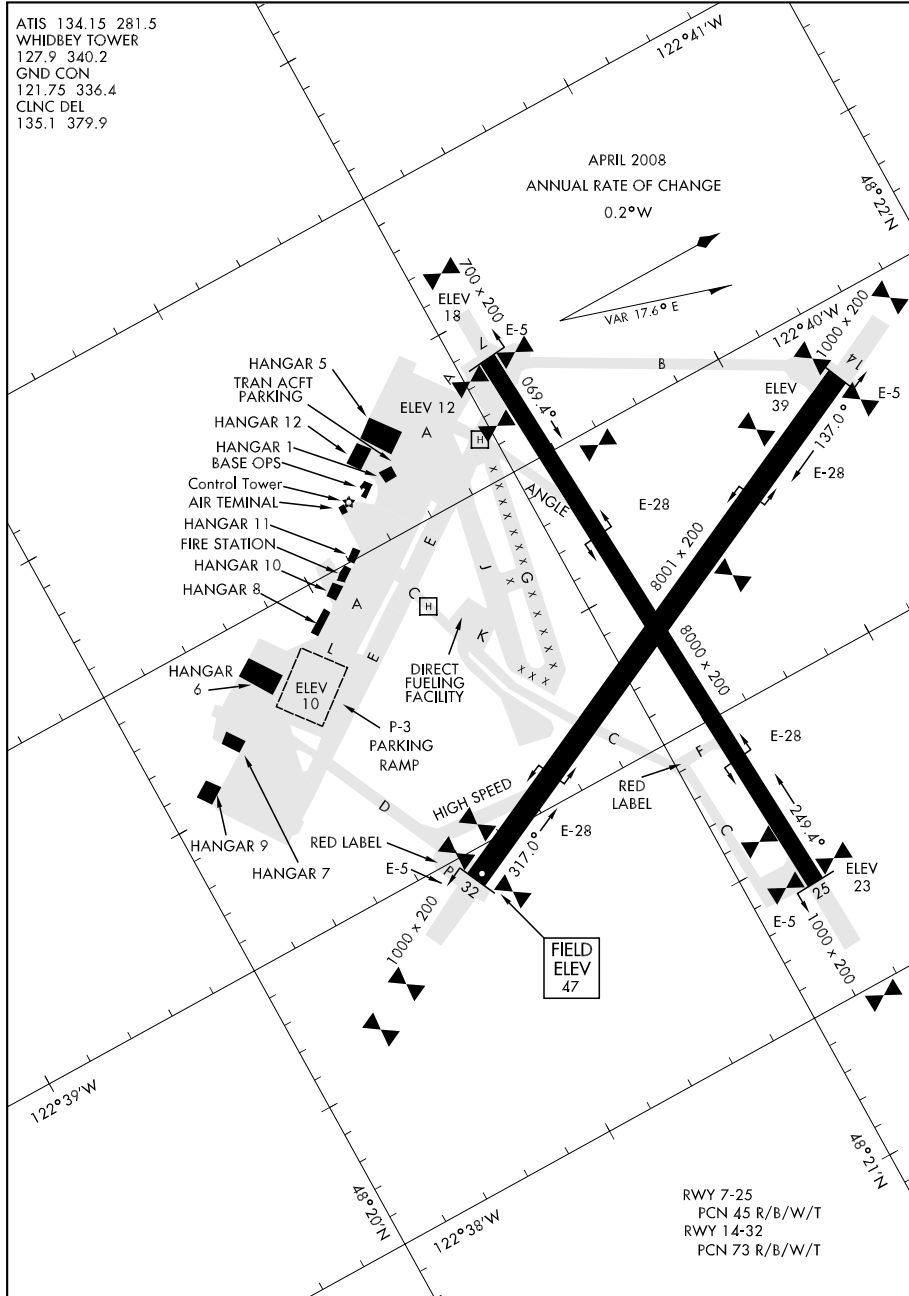
08101

AIRPORT DIAGRAM

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

AFD-451 [USN]

OAK HARBOR, WASHINGTON



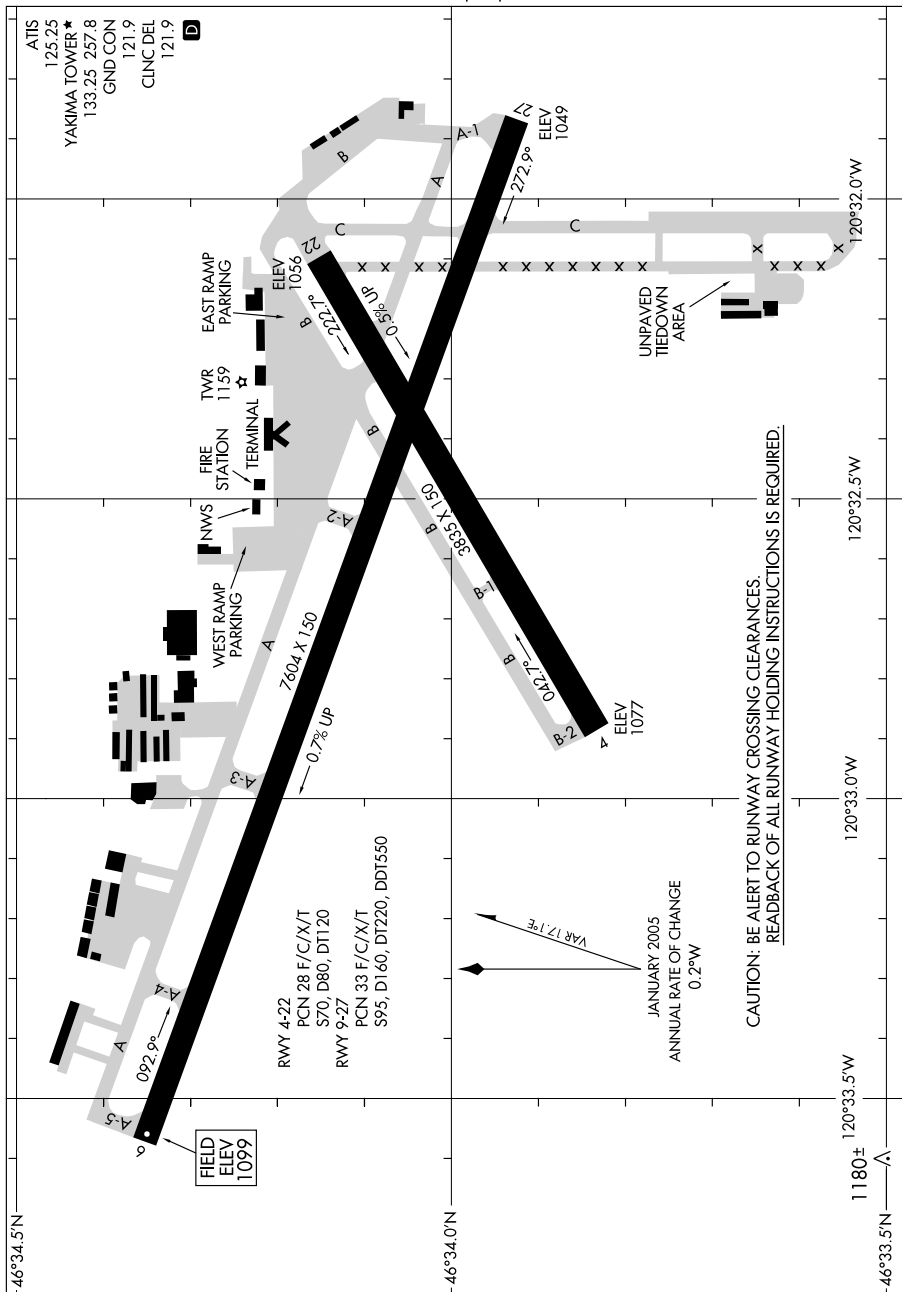
AIRPORT DIAGRAM

OAK HARBOR, WASHINGTON

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

09351

AIRPORT DIAGRAM

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
AL-465 (FAA) YAKIMA, WASHINGTON

AIRPORT DIAGRAM

YAKIMA, WASHINGTON
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

09351

**INTENTIONALLY
LEFT
BLANK**

